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Preface

Year Book Australia is the principal reference work produced by the Central Office of the Australian Bureau of Statistics (ABS). It provides a comprehensive and detailed statistical review of various aspects of the economy and social conditions in Australia. In addition, it contains descriptive matter dealing with Australia's government, international relations, defence, climate, physiography, culture and environment.

The first *Official Year Book of the Commonwealth* was published in 1908, although individual Australian States and colonies had been producing year books for several decades before that. *Year Book Australia 1992* is issued under the authority of the Commonwealth Government.

While the 1992 edition follows the basic structure of past issues, the contents and particularly the presentation have undergone some changes as part of a program of improvements which will continue over the next couple of issues.

Each year a number of *Special Articles* appear in the *Year Book*. This year's *Special Articles* are listed in the Table of Contents.

Most of the statistics contained in this volume relate to the years ended June or December 1990 or 1991. More detailed and, in most cases, more recent statistics are available in other ABS publications. The more significant of these publications are listed at the end of the relevant chapters of the *Year Book*, while the ABS *Catalogue of Publications and Products* (1101.0) lists all current publications of the ABS.

I extend my thanks and appreciation to all those officers involved in the preparation of *Year Book Australia 1992* and those organisations which have kindly supplied material for inclusion in this publication.

Australian Bureau of Statistics
Canberra
August 1992

IAN CASTLES
Australian Statistician

Year Book Australia is planned, compiled and edited in the Information Services Branch of the Australian Bureau of Statistics, Canberra.

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Much of the material contained in the *Year Book* is prepared by the staff responsible for respective fields of statistics in the Australian Bureau of Statistics, whose contribution is appreciated.

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A number of government departments and agencies, as well as private organisations and bodies, also provide much information in cooperation with the Bureau for inclusion in the *Year Book*. The Bureau wishes to thank the following for their cooperation and contributions.

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Introduction to Year Book Australia and how to use it

Year Book Australia provides a comprehensive overview of the economic and social conditions of contemporary Australia. It is a statistically oriented publication with sufficient background information to establish a context for the statistics and to assist in understanding and interpreting them.

Much of the statistics are derived from the Australian Bureau of Statistics (ABS), the official statistical agency which produces the *Year Book*. However, a great deal of statistics and background information on the various subjects is also contributed by other, predominantly government, organisations. The official nature of the sources of the contents of the *Year Book* ensures a high degree of objectivity and reliability in the picture presented of contemporary Australia.

The *Year Book* also presents, some historical and international perspectives of contemporary Australia, both in individual chapters and in the sections containing historical series and international comparisons of statistics at the end of the publication.

Finding information

The contents pages at the beginning of the *Year Book* and preceding each chapter provide a guide to the broad subjects contained in each chapter. The index assists in locating information on more specific subjects. A list of special, one-off articles which have appeared in previous editions is contained at the end of the *Year Book*

Symbols and abbreviations

The following symbols, where shown in columns of figures or elsewhere in tables, mean:

n.a.	not available
n.y.a	not yet available
—	nil or rounded to zero
. .	not applicable
n.p.	not available for separate publication (but included in totals where applicable)
p	preliminary — figures or series subject to revision
r	figures or series revised since previous issue
n.e.i.	not elsewhere included
n.e.c.	not elsewhere classified
n.e.s.	not elsewhere specified
____	break in continuity of series (where drawn across a column between two consecutive figures)
*	subject to sampling variability too high for most practical purposes.

The following abbreviations are used for the titles of the Australian States and Territories and Australia: NSW (New South Wales), Vic. (Victoria), Qld (Queensland), WA (Western Australia), SA (South Australia), Tas. (Tasmania), NT (Northern Territory), ACT (Australian Capital Territory), Aust. (Australia).

In general, the statistics in this volume relate to the State and Territories of Australia, i.e., they exclude particulars of the External Territories of Australia, which, however, are specifically dealt with in Chapter 3, The Territories of Australia.

Yearly periods shown as, for example, 1990 refer to the year ended 31 December 1990; those shown as, for example, 1989–90 refer to the year ended 30 June 1990. Other yearly periods are specifically indicated. The range of years shown in the table headings, for example, 1901 to 1989–90, indicates the period covered but does not necessarily imply that each intervening year is included or that the yearly period has remained the same throughout the series.

Values are shown in Australian dollars ($) or cents (c) unless another currency is specified.

Where figures have been rounded, discrepancies may occur between sums of the components items and totals.

Directory for further information

While the statistics and descriptive information contained in the *Year Book* provides a comprehensive overview of Australia, they represent only a relatively small part of the total stock of statistics and other information on respective subjects available from the ABS and other organisations. It is aimed primarily at providing a ready and convenient source of reference, both to those familiar and unfamiliar with a particular subject. In other words, because of the range of subjects and limitations on the size of the *Year Book* it aims at breadth rather than depth of information.

However, for those requiring information in greater depth, the *Year Book* also serves as a directory to more detailed sources. To this end the source is shown for each statistical table, graph and map. Where the ABS is the source, the title and catalogue number of the relevant publication is quoted. For other sources the name of the organisation is shown, and the publication title where appropriate. Relevant ABS and other publications are also listed at the end of each chapter, together with a reference to the information services available from the offices of the ABS, listed at the front of the *Year Book*. A useful complementary publication is the ABS *Catalogue of Publications and Products* (1101.0) which lists all current publications and products of the ABS.

The Year Books or Statistical Summaries produced by the ABS for each State or Territory, respectively, provide information similar to that contained in the Year Book Australia but focused on the State or Territory concerned.

In many cases, the ABS can also provide information which is not published or which is historical or compiled from a variety of published and unpublished sources. Information of this kind may be obtained through the Information Consultancy Service. This information may be made available in one or more of the following forms: consultancy reports, microfiche, floppy disk, magnetic tape, computer printout or photocopy. Charges are generally made for such information. Inquiries may be made by contacting Information Services in the nearest ABS office.

The annual reports of government departments and agencies also provide a valuable source of more detailed information on the administrative and other aspects of subjects covered in the *Year Book.*

For a variety of reasons it is not possible for all statistics in the *Year Book* to relate to the latest or same year. Readers wishing to obtain or clarify the latest available statistics should contact the relevant source.

This current (75th) edition is the latest in a long series of *Year Books* extending back to the first edition in 1908. This series provides a valuable source of information on the state of Australia at any particular point in this period.

Feedback from readers

The ABS endeavours to keep the balance of the contents of the *Year Book* in line with the ever changing nature of the nation. For this reason comments on the adequacy and balance of the contents of the *Year Book* are welcomed and should be directed to the Editor of the *Year Book* at ABS Central Office, Canberra.

Chapter One

Geography and Climate

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GEOGRAPHY OF AUSTRALIA

Position and area

Australia comprises a land area of 7,682,300 square kilometres. The land lies between latitudes 10°41′S. (Cape York) and 43°39′S. (South Cape, Tasmania) and between longitudes 113°09′E. (Steep Point) and 153°39′E. (Cape Byron). The most southerly point on the mainland is South Point (Wilson's Promontory) 39°08′S. The latitudinal distance between Cape York and South Point is about 3,180 kilometres, while the latitudinal distance between Cape York and South East Cape, Tasmania, is 3,680 kilometres. The longitudinal distance between Steep Point and Cape Byron is about 4,000 kilometres.

AREA, COASTLINE, TROPICAL AND TEMPERATE ZONES, AND STANDARD TIMES

	Estimated area			*Percentage of total area*		*Standard times*	
State/Territory	*Total*	*Percentage of total area*	*Length of coastline*	*Tropical zone*	*Temperate zone*	*Meridian selected*	*Ahead of GMT(a)*
	km^2		km				hours
New South Wales	801,600	10.43	1,900	. .	100	150°E	10.0
Victoria	227,600	2.96	1,800	. .	100	150°E	10.0
Queensland	1,727,200	22.48	7,400	54	46	150°E	10.0
South Australia	984,000	12.81	3,700	. .	100	142°30′E	9.5
Western Australia	2,525,500	32.87	12,500	37	63	120°E	8.0
Tasmania	67,800	0.88	3,200	. .	100	150°E	10.0
Northern Territory	1,346,200	17.52	6,200	81	19	142°30′E	9.5
Australian Capital Territory	2,400	0.03	(b)35	. .	100	150ÉE	10.0
Australia	**7,682,300**	**100.00**	**36,735**	**39**	**61**	. .	. .

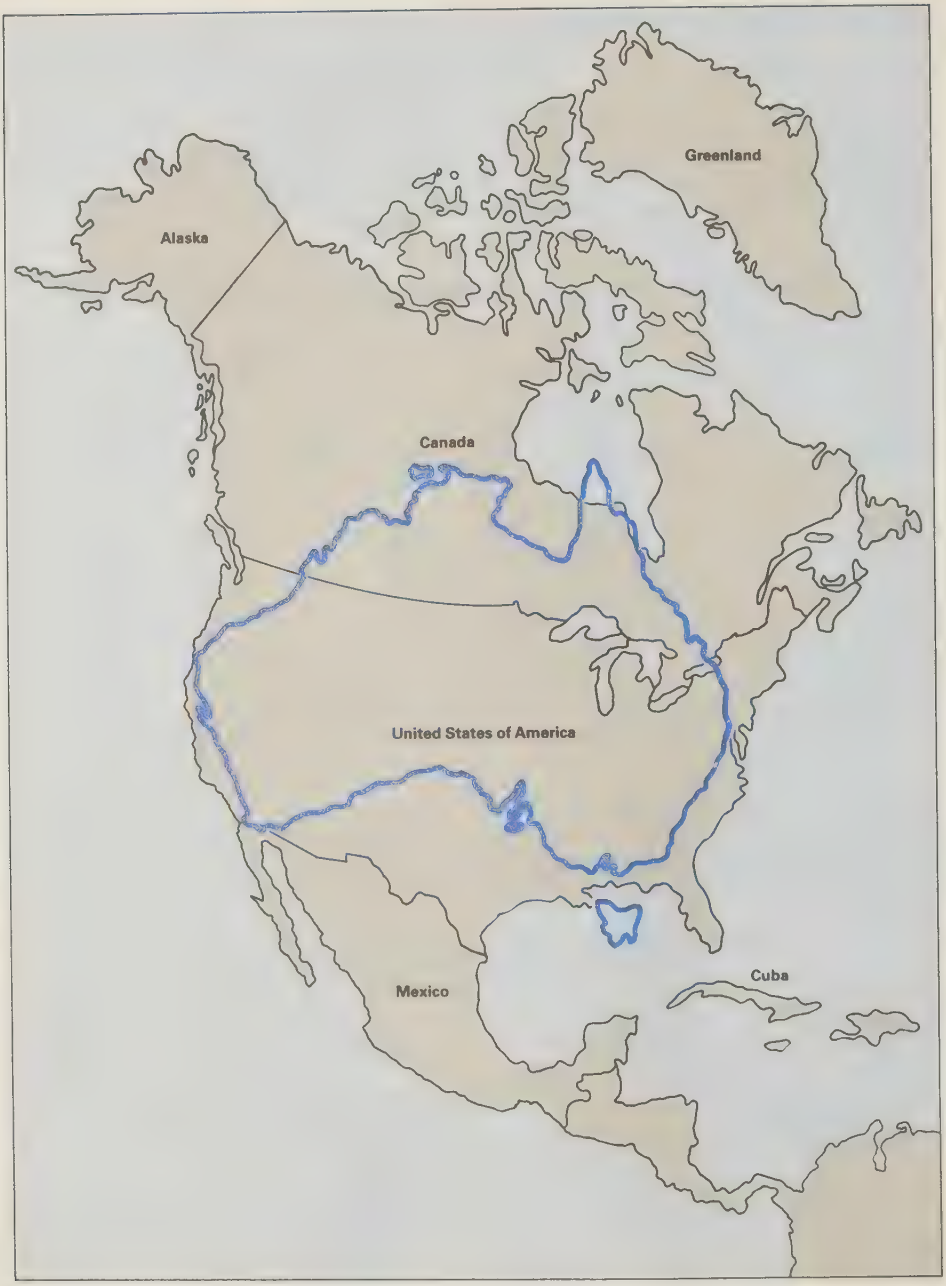
(a) Greenwich Mean Time. During daylight saving periods, an hour should be added to the times in this column. (b) Jervis Bay Territory.
Source: Bureau of Meteorology.

The area of Australia is almost as great as that of the United States of America (excluding Alaska), about 50 per cent greater than Europe (excluding USSR) and 32 times greater than the United Kingdom. The following table and maps show the area of Australia in relation to areas of other continents and selected countries.

AREAS OF CONTINENTS AND SELECTED COUNTRIES
('000 square kilometres)

Country	*Area*
Continents	
Asia	44,614
Africa	30,319
North, Central America and West Indies	24,247
South America	17,834
Europe	10,600
Australia and Oceania	8,504
Countries (seven largest)	
Russia	17,073
Canada	9,976
China	9,590
United States of America	9,363
Brazil	8,512
Australia	7,682
India	3,288
Selected other countries	
Belorussia	208
France	544
Germany	357
Indonesia	1,919
Japan	372
Kazakhstan	2,717
Papua New Guinea	462
New Zealand	269
Ukraine	604
United Kingdom	244
Total land mass excluding Arctic and Antarctic continents	**135,774**

Source: Encyclopedia Britannica and The World Book Encyclopedia.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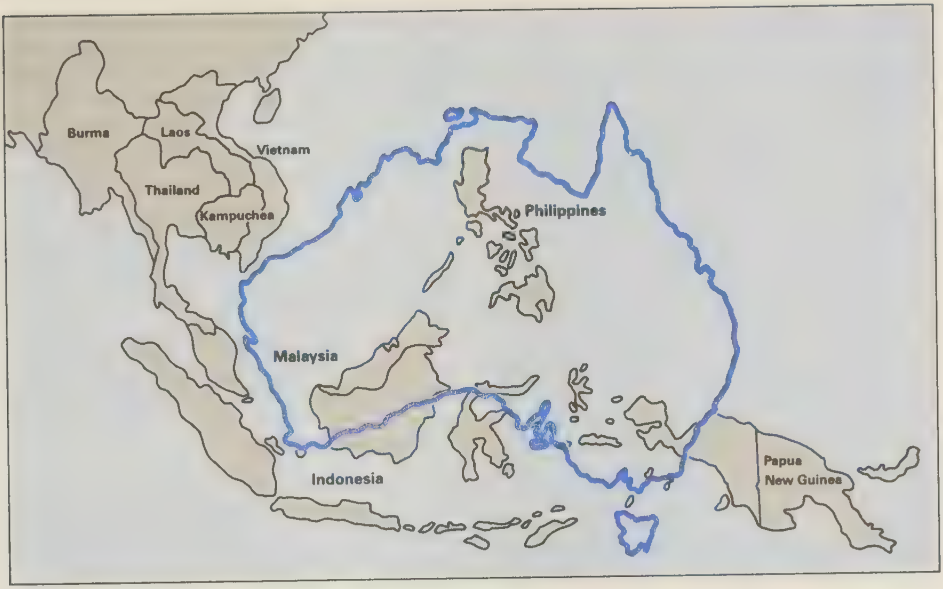
Canada
United States of America
Mexico
Cuba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Thailand
Kampuchea
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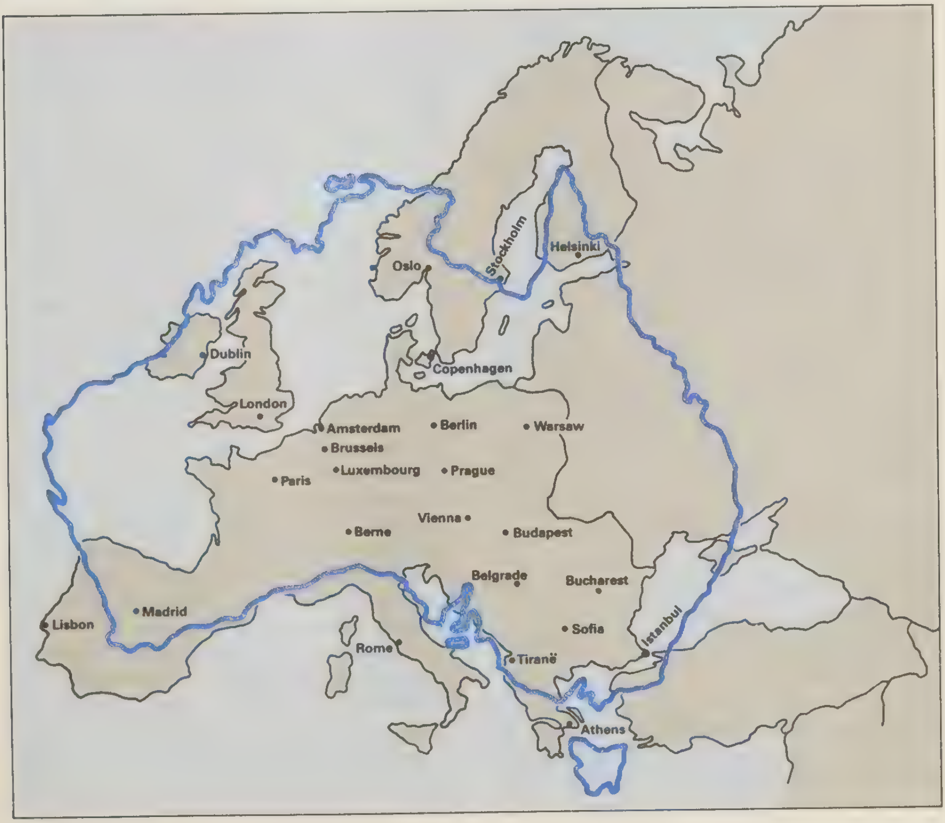
Malaysia
Indonesia
Papua
New Guinea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Budapest
Belgrade
Bucharest
Madrid
Lisbon
Sofia
Istanbul
Rome
Tiranë
Athens

Rivers and lakes

The rivers of Australia may be divided into two major classes, those of the coastal margins with moderate rates of fall and those of the central plains with very slight fall. Of the rivers of the east coast, the longest in Queensland are the Burdekin and the Fitzroy, while the Hunter is the largest coastal river of New South Wales. The longest river system in Australia is the Murray–Darling which drains part of Queensland, the major part of New South Wales and a large part of Victoria, finally flowing into the arm of the sea known as Lake Alexandrina, on the eastern side of the South Australian coast. The length of the Murray is about 2,520 kilometres and the Darling and Upper Darling together are also just over 2,500 kilometres long. The rivers of the north-west coast of Australia, e.g., the Murchison, Gascoyne, Ashburton, Fortescue, De Grey, Fitzroy, Drysdale and Ord, are of considerable size. So also are those rivers in the Northern Territory, e.g., the Victoria and Daly, and those on the Queensland side of the Gulf of Carpentaria, such as the Gregory, Leichhardt, Cloncurry, Gilbert and Mitchell. The rivers of Tasmania have short and rapid courses, as might be expected from the configuration of the country.

There are many types of lake in Australia, the largest being drainage sumps from the internal rivers. In dry seasons these lakes finally become beds of salt and dry mud. The largest are Lake Eyre 9,500 square kilometres, Lake Torrens 5,900 square kilometres and Lake Gairdner 4,300 square kilometres.

Other lake types are glacial, most common in Tasmania; volcanic crater lakes predominantly in Victoria and Queensland; fault angle lakes, of which Lake George near Canberra is a good example and coastal lakes formed by marine damming of valleys.

CLIMATE OF AUSTRALIA

The island continent of Australia features a wide range of climatic zones, from the tropical regions of the north, the arid expanses of the interior, to the temperate regions of the south.

Widely known as 'The Dry Continent', the land mass is relatively arid, with 80 per cent having a median rainfall less than 600 millimetres per year and 50 per cent less than 300 millimetres. Seasonal fluctuations can be great, with temperatures ranging from above 50°C to well below zero. However, extreme minimum temperatures are not as low as those recorded in other continents because of the absence of extensive mountain masses and because of the expanse of the surrounding oceans.

Although the climate can be described as predominantly continental, the insular nature of the land mass produces modifications to the general continental pattern.

Australia can be host to any of nature's disasters, particularly droughts, floods, tropical cyclones, severe storms and bushfires.

Climatic controls

The generally low relief of Australia causes little obstruction to the atmospheric systems which control the climate. A notable exception is the eastern uplands which modify the atmospheric flow.

In the winter half of the year (May–October) anticyclones, or high pressure systems, pass from west to east across the continent and often remain almost stationary over the interior for several days. These anticyclones may extend to 4,000 kilometres along their west–east axes. Northern Australia is then influenced by mild, dry south-east trade winds, and southern Australia experiences cool, moist westerly winds. The westerlies and the frontal systems associated with extensive depressions travelling over the Southern Ocean have a controlling influence on the climate of southern Australia during the winter season, causing rainy periods. Periodic north-west cloud bands in the upper levels of the atmosphere over the continent may interact with southern systems to produce rainfall episodes, particularly over eastern areas. Cold outbreaks, particularly in south-east Australia, occur when cold air of Southern Ocean origin is directed northwards by intense depressions having diameters up to 2,000 kilometres. Cold fronts associated with the southern depressions, or with secondary depressions over the Tasman Sea, may produce large day-to-day changes in temperature in southern areas, particularly in south-east coastal regions.

In the summer half of the year (November–April) the anticyclones travel from west to east on a more southerly track across the southern fringes of Australia directing easterly winds generally over the continent. Fine, warmer weather predominates in southern Australia with the passage of each anticyclone. Heat waves occur when there is an interruption to the eastward progression of the anticyclone (blocking) and winds back northerly and later north-westerly. Northern Australia comes under the influence of summer disturbances associated with the southward intrusion of warm moist monsoonal air from north of the inter-tropical convergence zone, resulting in a hot rainy season. Southward dips of the monsoonal low pressure trough sometimes spawn tropical depressions, and may prolong rainy conditions over northern Australia for episodes up to three weeks at a time.

Tropical cyclones develop over the seas around northern Australia in summer between November and April. Their frequency of occurrence and the tracks they follow vary greatly from season to season. On average, about three cyclones per season directly affect the Queensland coast, and about three affect the north and north-west coasts. Tropical cyclones approaching the coast usually produce very heavy rain and high winds in coastal areas. Some cyclones move inland, losing intensity but still producing widespread heavy rainfall.

The climate of eastern and northern Australia is influenced by the Southern Oscillation (SO), seesawing of atmospheric pressure between the northern Australian/Indonesian region and the central Pacific Ocean. This oscillation is the second most important cause of climatic variation after the annual seasonal cycle, over eastern and northern Australia. The strength of the Southern Oscillation is determined by the Southern Oscillation Index (SOI) which is a measure of the difference in sea level atmospheric pressure between Tahiti in the central Pacific and Darwin, northern Australia. At one extreme of the oscillation, the pressure is abnormally high at Darwin and abnormally low at Tahiti. Severe and widespread drought over eastern and northern Australia generally accompanies this extreme. These conditions generally commence early in the year, last for about 12 months, and have a re-occurrence period of 2 to 7 years.

The above extreme is generally immediately preceded or followed by the opposite extreme where pressures at Darwin are abnormally low and those at Tahiti are abnormally high. In this case, rainfall is generally above average over eastern and northern Australia.

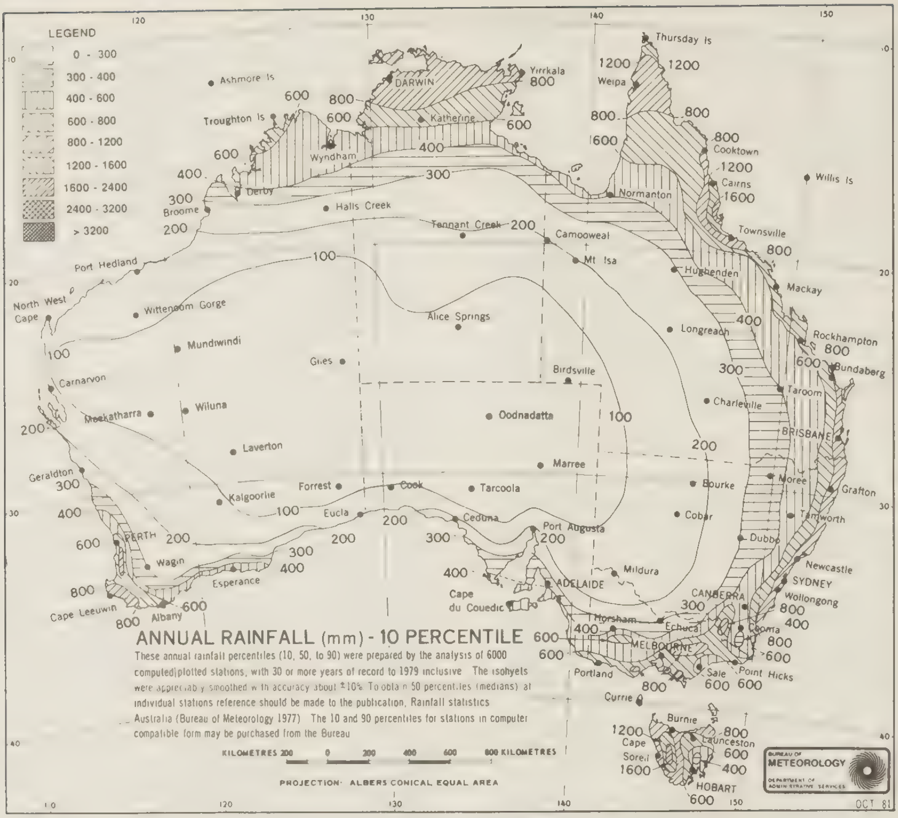
The SO is linked to sea surface temperature (SSTs) in the Pacific Ocean. Dry extreme SO years are accompanied by above normal SSTs in the central and/or eastern equatorial Pacific and vice versa. Dry extreme years are called El Nino years. Wet extreme years are called La Nina years.

Rainfall and other precipitation

Annual

The annual 10, 50 and 90 percentile rainfall maps are shown on Figures 1, 2 and 3 respectively. The area of lowest rainfall is in the vicinity of Lake Eyre in South Australia, where the median (50 percentile) rainfall is only about 100 millimetres. Another very low rainfall area is in Western Australia in the Giles–Warburton Range region, which has a median annual rainfall of about 150 millimetres. A vast region, extending from the west coast near Shark Bay across the interior of Western Australia and South Australia to south-west Queensland and north-west New South Wales, has a median annual rainfall of less than 200 millimetres. This region is not normally exposed to moist air masses for extended periods and rainfall is irregular, averaging only one or two days per month. However, in favourable synoptic situations, which occur infrequently over extensive parts of the region, up to 400 millimetres of rain may fall within a few days and cause widespread flooding.

The region with the highest median annual rainfall is the east coast of Queensland between Cairns and Cardwell, where Tully has a median of 4,048 millimetres (63 years to 1987 inclusive). The mountainous region of western Tasmania also has a high annual rainfall, with Lake Margaret having a median of 3,565 millimetres (76 years to 1987 inclusive). In the mountainous areas of north-east Victoria and some parts of the east coastal slopes there are small pockets with median annual rainfall greater than 2,500 millimetres, but the map scale is too small for these to be shown.



ANNUAL RAINFALL (mm) - 10 PERCENTILE

These annual rainfall percentiles (10, 50, to 90) were prepared by the analysis of 6000 computed|plotted stations, with 30 or more years of record to 1979 inclusive. The isohyets were appreciably smoothed with accuracy about ±10%. To obtain 50 percentiles (medians) at individual stations reference should be made to the publication, Rainfall statistics Australia (Bureau of Meteorology 1977). The 10 and 90 percentiles for stations in computer compatible form may be purchased from the Bureau

LEGEND
0 - 300
300 - 400
400 - 600
600 - 800
800 - 1200
1200 - 1600
1600 - 2400
2400 - 3200
> 3200
KILOMETRES 200 0 200 400 600 800 KILOMETRES
PROJECTION: ALBERS CONICAL EQUAL AREA
BUREAU OF METEOROLOGY
DEPARTMENT OF ADMINISTRATIVE SERVICES
OCT 81
120
130
140
150
10
20
30
40
Thursday Is
Yirrkala
Weipa
DARWIN
Ashmore Is
Troughton Is
Katherine
Wyndham
Derby
Broome
Halls Creek
Tennant Creek
Camooweal
Normanton
Cooktown
Cairns
Willis Is
Townsville
Mt Isa
Hughenden
Mackay
Port Hedland
North West Cape
Wittenoom Gorge
Alice Springs
Longreach
Rockhampton
Mundiwindi
Giles
Birdsville
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Grafton
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Wollongong
Cape Leeuwin
Albany
Horsham
Echuca
Cooma
MELBOURNE
Portland
Sale
Point Hicks
Currie
Burnie
Launceston
Cape Sorell
HOBART
100
200
300
400
600
800
1200
1600

FIGURE 1

NOTE: The amounts that are not exceeded by 10, 50 and 90 per cent of all recordings are the 10, 50 and 90 percentiles or the first, fifth and ninth deciles respectively. The 50 percentile is usually called the median.

The Snowy Mountains area in New South Wales also has a particularly high rainfall. The highest median annual rainfall isohyet drawn for this region is 3,200 millimetres, and it is likely that small areas have a median annual rainfall approaching 4,000 millimetres on the western slopes above 2,000 metres elevation.

The following table shows the area distribution of median annual rainfall.

AREA DISTRIBUTION OF MEDIAN ANNUAL RAINFALL
(per cent)

Median annual rainfall	*NSW(a)*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*Aust.*
Under 200 mm	8.0	. .	10.2	74.2	43.5	. .	15.5	29.6
200 to 300 mm	20.3	6.3	13.0	13.5	29.6	. .	35.6	22.9
300 to 400 mm	19.0	19.2	12.3	6.8	10.5	. .	9.0	11.2
400 to 500 mm	12.4	11.8	13.5	3.2	4.3	. .	6.6	7.6
500 to 600 mm	11.3	14.1	11.6	1.8	3.1	12.2	5.8	6.6
600 to 800 mm	15.1	24.5	20.5	0.5	4.6	18.2	11.6	10.7
800 to 1,200 mm	11.3	17.7	12.6	. .	3.7	25.0	9.6	7.7
Above 1,200 mm	2.6	6.4	6.3	. .	0.7	44.6	6.3	3.7
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

(a) Includes Australian Capital Territory.
Source: Bureau of Meteorology.

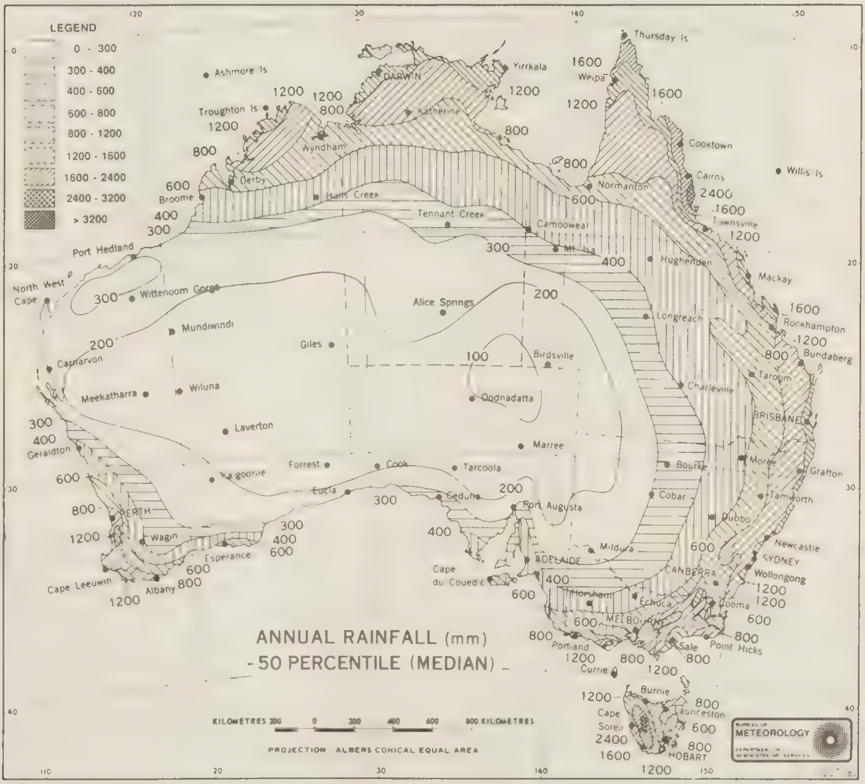

LEGEND
0 - 300
300 - 400
400 - 600
600 - 800
800 - 1200
1200 - 1600
1600 - 2400
2400 - 3200
> 3200
ANNUAL RAINFALL (mm)
- 50 PERCENTILE (MEDIAN)
KILOMETRES 200 0 200 400 600 800 KILOMETRES
PROJECTION ALBERS CONICAL EQUAL AREA
BUREAU OF METEOROLOGY
Thursday Is
Ashmore Is
Troughton Is
DARWIN
Yirrkala
Weipa
Katherine
Wyndham
Cooktown
Willis Is
Cairns
Derby
Broome
Halls Creek
Normanton
Tennant Creek
Camooweal
Townsville
Port Hedland
Mt Isa
Hughenden
Mackay
North West Cape
Wittenoom Gorge
Alice Springs
Longreach
Rockhampton
Mundiwindi
Giles
Birdsville
Bundaberg
Carnarvon
Taroom
Charleville
Meekatharra
Wiluna
Oodnadatta
BRISBANE
Laverton
Marree
Geraldton
Forrest
Cook
Tarcoola
Bourke
Moree
Grafton
Kalgoorlie
Eucla
Ceduna
Port Augusta
Cobar
Tamworth
PERTH
Dubbo
Wagin
Esperance
Mildura
Newcastle
SYDNEY
Cape Leeuwin
Albany
Cape du Couedic
ADELAIDE
CANBERRA
Wollongong
Horsham
Echuca
Cooma
MELBOURNE
Portland
Sale
Point Hicks
Currie
Burnie
Launceston
Cape Sorell
HOBART
100
200
300
400
600
800
1200
1600
2400
110
120
130
140
150
10
20
30
40

FIGURE 2

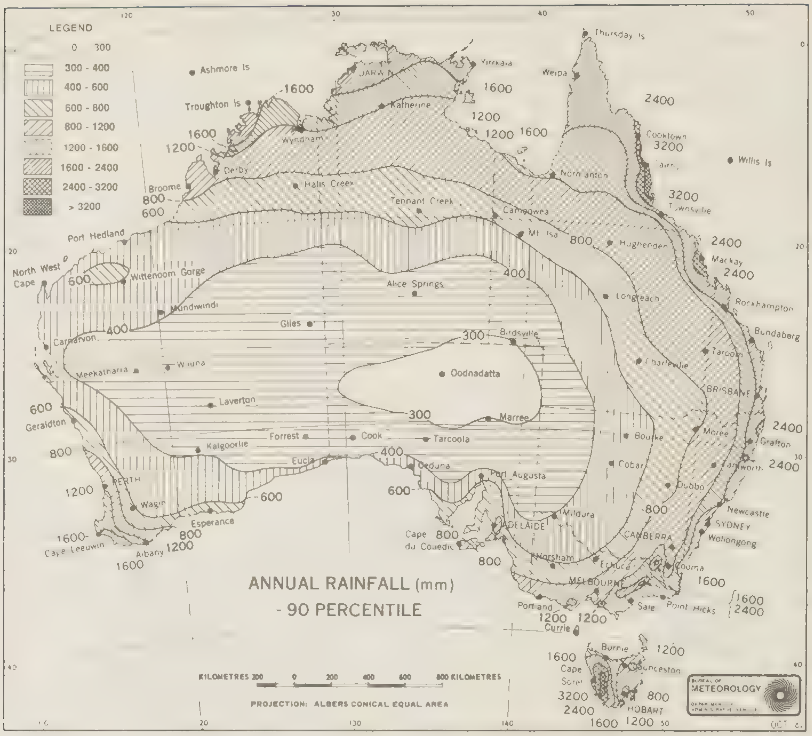

LEGEND
0 300
300 - 400
400 - 600
600 - 800
800 - 1200
1200 - 1600
1600 - 2400
2400 - 3200
> 3200
ANNUAL RAINFALL (mm)
- 90 PERCENTILE
KILOMETRES 200 0 200 400 600 800 KILOMETRES
PROJECTION: ALBERS CONICAL EQUAL AREA
BUREAU OF METEOROLOGY
Thursday Is
Ashmore Is
Troughton Is
Yirrkala
Weipa
Katherine
Wyndham
Derby
Halls Creek
Broome
Tennant Creek
Normanton
Cooktown
Cairns
Willis Is
Townsville
Camooweal
Mt Isa
Hughenden
Mackay
Rockhampton
Port Hedland
North West Cape
Wittenoom Gorge
Alice Springs
Longreach
Mundiwindi
Giles
Carnarvon
Birdsville
Bundaberg
Taroom
Charleville
Meekatharra
Wiluna
Oodnadatta
BRISBANE
Laverton
Marree
Geraldton
Bourke
Moree
Grafton
Forrest
Cook
Tarcoola
Kalgoorlie
Eucla
Ceduna
Cobar
Tamworth
Port Augusta
PERTH
Dubbo
Wagin
Esperance
Mildura
Newcastle
SYDNEY
Wollongong
ADELAIDE
CANBERRA
Cape du Couedic
Cape Leeuwin
Albany
Horsham
Echuca
Cooma
MELBOURNE
Portland
Sale
Point Hicks
Currie
Burnie
Launceston
Cape Sorell
HOBART
120
130
140
150
10
20
30
40
300
400
600
800
1200
1600
2400
3200

FIGURE 3

Seasonal

As outlined above, the rainfall pattern of Australia is strongly seasonal in character with a winter rainfall regime in the south and a summer regime in the north.

The dominance of rainfall over other climatic elements in determining the growth of specific plants in Australia has led to the development of a climatic classification based on two main parameters. The parameters are median annual rainfall and seasonal rainfall incidence. Figure 4 is a reduced version of the seasonal rainfall zones arising from this classification (*see* Bureau of Meteorology publication *Climatic Atlas of Australia, 1988*).

Evaporation and the concept of rainfall effectiveness are taken into account to some extent in this classification by assigning higher median annual rainfall limits to the summer zones than the corresponding uniform and winter zones. The main features of the seasonal rainfall are:

- marked wet summer and dry winter of northern Australia;
- wet summer and relatively dry winter of south-eastern Queensland and north-eastern New South Wales;
- uniform rainfall in south-eastern Australia — much of New South Wales, parts of eastern Victoria and southern Tasmania;
- marked wet winter and dry summer of south-west Western Australia and, to a lesser extent, much of the remainder of southern Australia directly influenced by westerly circulation; and

- arid area comprising about half the continent extending from the north-west coast of Western Australia across the interior and reaching the south coast at the head of the Great Australian Bight.

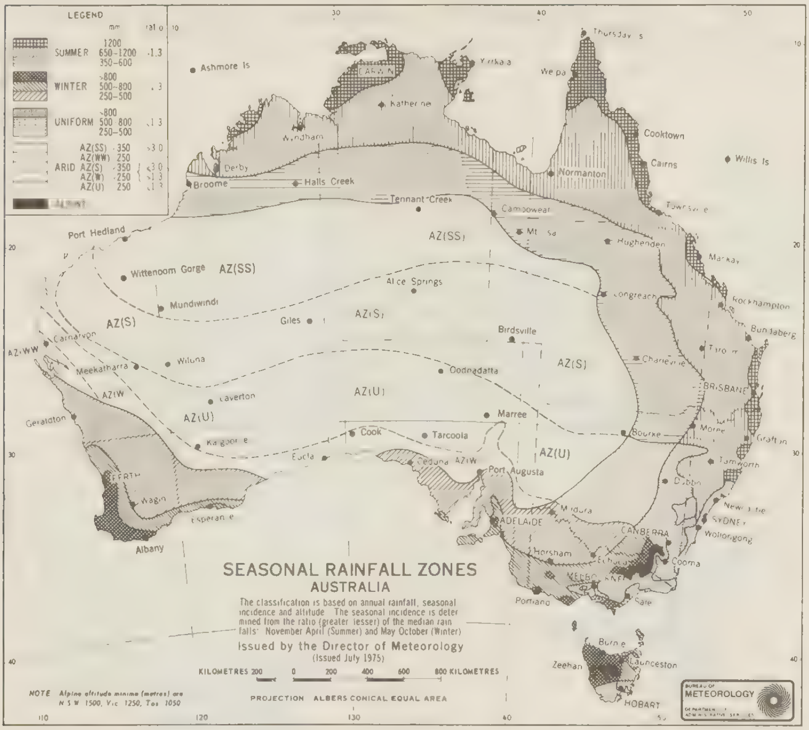

SEASONAL RAINFALL ZONES
AUSTRALIA
The classification is based on annual rainfall, seasonal incidence and altitude. The seasonal incidence is determined from the ratio (greater: lesser) of the median rainfalls: November April (Summer) and May October (Winter)
Issued by the Director of Meteorology
(Issued July 1975)
LEGEND
SUMMER
WINTER
UNIFORM
ARID
AZ(SS)
AZ(S)
AZ(U)
AZ(WW)
AZ(W)
PROJECTION ALBERS CONICAL EQUAL AREA
KILOMETRES
Darwin
Alice Springs
Perth
Adelaide
Brisbane
Sydney
Canberra
Melbourne
Hobart
METEOROLOGY

FIGURE 4

The seasonal rainfall classification (*Climatic Atlas of Australia, 1988*) can be further reduced to provide a simplified distribution of seven climatic zones as shown in Figure 5.

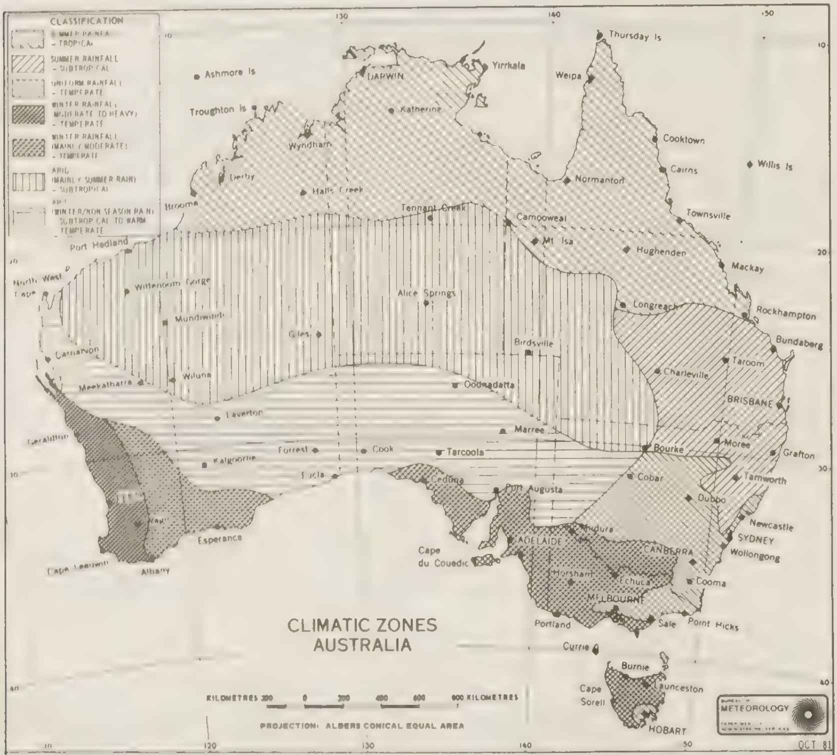
Variability

The adequate presentation of rainfall variability over an extensive geographical area is difficult. Probably the best measures are found in tables compiled for a number of individual stations in some of the Climatic Survey districts. These tables show the percentage chances of receiving specified amounts of rainfall in monthly, seasonal or annual time spans. Statistical indices of rainfall variation based on several techniques have been used to compile maps showing main features of the variability of annual rainfall over Australia.

One index for assessing the variability of annual rainfall is given by the ratio of the 90–10 percentile range to the 50 percentile (median value):

i.e., Variability Index = $\left\{\frac{90\text{–}10}{50}\right\}$ percentiles.

Variability based on this relationship (Gaffney 1975 and Lee and Gaffney 1986) is shown in Figure 6. The region of high to extreme variability shown in Figure 6 lies mostly in the arid zones with summer rainfall incidence, AZ (S) defined on Figure 4. In the winter rainfall zones, the variability is generally low to moderate as exemplified by the south-west of Western Australia. In the tropics, random cyclone visitations cause extreme variations in rainfall from year to year: at Onslow (Western Australia), annual totals varied from 15 millimetres in 1912 to 1,085 millimetres in 1961 and, in the four consecutive years 1921 to 1924, the annual totals were 566, 69, 682 and 55 millimetres respectively. At Whim Creek (Western Australia), where 747 millimetres have been recorded in a single day, only 4 millimetres were received in the whole of 1924. Great variability can also occur in the heavy rainfall areas: at Tully (Queensland), the annual rainfalls have varied from 7,898 millimetres in 1950 to 2,486 millimetres in 1961.


CLASSIFICATION
SUMMER RAINFALL - TROPICAL
SUMMER RAINFALL - SUBTROPICAL
UNIFORM RAINFALL - TEMPERATE
WINTER RAINFALL (MODERATE TO HEAVY) - TEMPERATE
WINTER RAINFALL (MAINLY MODERATE) - TEMPERATE
ARID (MAINLY SUMMER RAIN) - SUBTROPICAL
ARID (WINTER/NON SEASON RAIN) SUBTROPICAL TO WARM TEMPERATE
130
140
150
10
20
30
40
Ashmore Is
Troughton Is
DARWIN
Yirrkala
Thursday Is
Weipa
Katherine
Wyndham
Derby
Halls Creek
Broome
Cooktown
Cairns
Willis Is
Normanton
Townsville
Tennant Creek
Camooweal
Mt Isa
Hughenden
Mackay
Port Hedland
North West Cape
Wittenoom Gorge
Alice Springs
Longreach
Rockhampton
Mundiwindi
Giles
Bundaberg
Carnarvon
Birdsville
Taroom
Meekatharra
Wiluna
Oodnadatta
Charleville
BRISBANE
Laverton
Marree
Moree
Geraldton
Grafton
Forrest
Cook
Tarcoola
Bourke
Kalgoorlie
Eucla
Ceduna
Cobar
Tamworth
PERTH
Port Augusta
Dubbo
Esperance
Newcastle
Mildura
SYDNEY
ADELAIDE
CANBERRA
Wollongong
Cape Leeuwin
Albany
Cape du Couedic
Horsham
Echuca
Cooma
MELBOURNE
CLIMATIC ZONES AUSTRALIA
Portland
Sale
Point Hicks
Currie
Burnie
Launceston
Cape Sorell
HOBART
KILOMETRES 200 0 200 400 600 800 KILOMETRES
PROJECTION: ALBERS CONICAL EQUAL AREA
METEOROLOGY
OCT 81

CLASSIFICATION	SEASONAL CHARACTERISTICS SUMMER	WINTER
Summer Rainfall Tropical	Heavy periodic rains (heavier in coastal & highland areas) Hot generally Humid in coastal areas	Generally rainless Mild to warm Dry
Summer Rainfall Subtropical	Heavy periodic rains (heavier in coastal & highland areas) Mainly hot Humid in highlands & coastal areas	Some significant rain Mild
Uniform Rainfall Temperate	Mainly reliable rain Warm to hot	Mainly reliable rain Cool to cold
Winter Rainfall (moderate to heavy) Temperate	Irregular rain mostly light Warm to hot	Reliable rain (moderate to heavy) Cool to mild
Winter Rainfall (mainly moderate) - Temperate	Mostly light irregular rain Warm to hot	Reliable rain (mainly moderate) Cool to cold
Arid (mainly summer rain) - Subtropical	Variably rain Hot to extreme Very dry	Mainly irregular light rain Mild to warm Dry
Arid (winter or non-seasonal rain) - Warm Temperate to Subtropical	Very irregular rain Hot to extreme Very dry	Variable rain mainly light Cool to mild Dry

[Reference Climatic Atlas of Australia, Map set 5, Bureau of Meteorology 1975]

FIGURE 5

Variability of rainfall in eastern Australia is strongly linked to the Southern Oscillation — *see* under Climatic controls. High SOI values relate to above average rainfall over eastern Australia, and low SOI values relate to below average rainfall over the area. The table below illustrates the significance of this SOI/rainfall relationship.

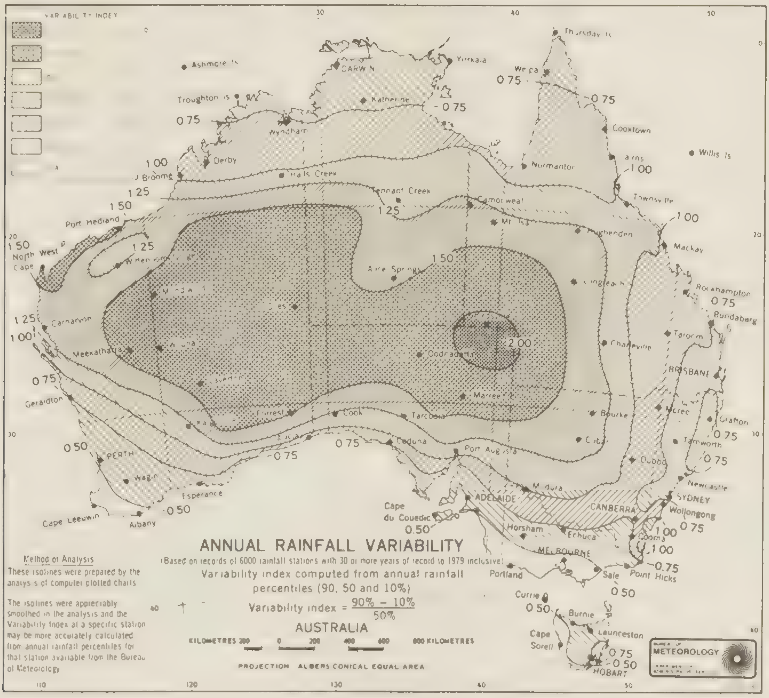

ANNUAL RAINFALL VARIABILITY
(Based on records of 6000 rainfall stations with 30 or more years of record to 1979 inclusive)
Variability index computed from annual rainfall percentiles (90, 50 and 10%)
Variability index = 90% − 10% / 50%
AUSTRALIA
KILOMETRES 200 0 200 400 600 800 KILOMETRES
PROJECTION ALBERS CONICAL EQUAL AREA
Method of Analysis
These isolines were prepared by the analysis of computer plotted charts
The isolines were appreciably smoothed in the analysis and the Variability Index at a specific station may be more accurately calculated from annual rainfall percentiles for that station available from the Bureau of Meteorology
METEOROLOGY
Ashmore Is
Troughton Is
DARWIN
Katherine
Yirrkala
Weipa
Thursday Is
Cooktown
Willis Is
Wyndham
Derby
Broome
Halls Creek
Tennant Creek
Camooweal
Normanton
Cairns
Townsville
Mackay
Port Hedland
North West Cape
Alice Springs
Hughenden
Longreach
Rockhampton
Bundaberg
Carnarvon
Meekatharra
Oodnadatta
Charleville
Taroom
BRISBANE
Geraldton
Marree
Bourke
Moree
Grafton
Forrest
Cook
Tarcoola
Tamworth
PERTH
Ceduna
Port Augusta
Cobar
Dubbo
Newcastle
Wagin
Esperance
Cape Leeuwin
Albany
ADELAIDE
Mildura
SYDNEY
Wollongong
CANBERRA
Cape du Couedic
Horsham
Echuca
Cooma
MELBOURNE
Portland
Sale
Point Hicks
Currie
Burnie
Launceston
Cape Sorell
HOBART
0 75
1 00
1 25
1 50
2 00
0 50
110
120
130
140
150
10
20
30
40

FIGURE 6

AVERAGE AREA OF EASTERN AUSTRALIA(a) WITH ANNUAL RAINFALL IN SPECIFIED RANGES BY SOUTHERN OSCILLATION INDEX RANGE

SOI range	*Number of years (1933–87)*	*Average SOI*	*Percentage of area within percentile limits*		
			≤30 percentile	*31–70 percentile*	*>70 percentile*
<–10	6	–13.5	63.1	30.5	6.4
–5 to –10	8	–6.5	33.9	47.3	18.8
0 to –5	11	–1.7	28.5	50.7	20.8
+5 to 0	19	1.8	26.2	42.8	31.0
+10 to +5	5	5.9	9.5	53.7	36.8
>+10	6	1.9	3.0	25.6	71.4

(a) Queensland, New South Wales, Victoria and Tasmania.

Source: Bureau of Meteorology.

Rainday frequency

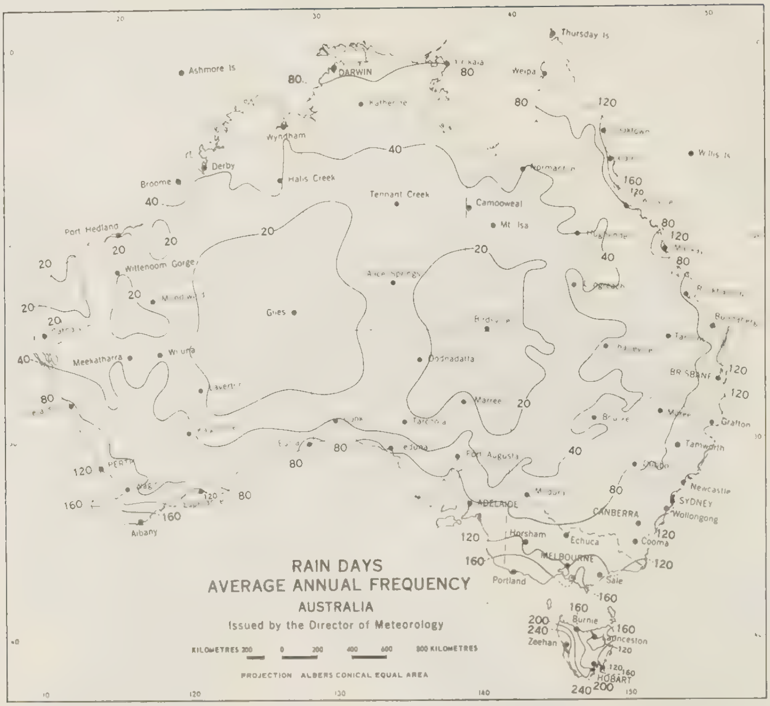

RAIN DAYS
AVERAGE ANNUAL FREQUENCY
AUSTRALIA
Issued by the Director of Meteorology
KILOMETRES 200 0 200 400 600 800 KILOMETRES
PROJECTION ALBERS CONICAL EQUAL AREA
Thursday Is
Ashmore Is
DARWIN
Weipa
Wyndham
Derby
Broome
Halls Creek
Tennant Creek
Camooweal
Mt Isa
Willis Is
Port Hedland
Wittenoom Gorge
Giles
Alice Springs
Oodnadatta
Meekatharra
Wiluna
Marree
PERTH
Albany
Port Augusta
ADELAIDE
CANBERRA
SYDNEY
Newcastle
Wollongong
Tamworth
Grafton
BRISBANE
Horsham
Echuca
Cooma
MELBOURNE
Portland
Sale
Burnie
Launceston
Zeehan
HOBART
20
40
80
120
160
200
240

FIGURE 7

The average number of days per year with rainfall of 0.2 millimetres or more is shown in Figure 7.

The frequency of raindays exceeds 150 per year in Tasmania (with a maximum of over 200 in western Tasmania), southern Victoria, parts of the north Queensland coast and in the extreme south-west of Western Australia. Over most of the continent the frequency is less than 50 raindays per year. The area of low rainfall with high variability, extending from the north-west coast of Western Australia through the interior of the continent, has less than 25 raindays per year. In the high rainfall areas of northern Australia the number of raindays is about 80 per year, but heavier falls occur in this region than in southern regions.

Intensity

The highest rainfall intensities for some localities are shown in the table below.

HIGHEST RAINFALL INTENSITIES IN SPECIFIED PERIODS

Station	Period of record	Years of complete records	Period in hours 1	3	6	12	24
			mm	mm	mm	mm	mm
Adelaide	1897–1979	79	69	133	141	141	141
Alice Springs	1951–1986	36	75	87	108	133	150
Brisbane	1911–1987	77	88	142	182	266	327
Broome	1948–1983	36	112	157	185	313	353
Canberra	1938–1982	37	40	57	67	76	120
Carnarvon	1956–1982	27	44	63	83	95	108
Charleville	1953–1987	35	42	66	75	111	142
Cloncurry	1953–1981	23	59	118	164	173	204
Darwin (Airport)	1953–1987	35	89	138	214	260	291
Esperance	1963–1979	15	23	45	62	68	79
Hobart	1911–1985	75	28	56	87	117	168
Meekatharra	1953–1982	30	33	67	81	99	112
Melbourne	1873–1986	100	76	83	86	97	130
Mildura	1953–1986	34	49	60	65	66	91
Perth	1946–1983	37	31	37	48	64	80
Sydney	1913–1987	71	121	194	200	244	340
Townsville	1953–1987	34	88	158	235	296	319

Source: Pluviograph records in Bureau of Meteorology archives.

These figures represent intensities over only small areas around the recording points because turbulence and exposure characteristics of the measuring gauge may vary over a distance of a few metres. The highest 24 hour (9 a.m. to 9 a.m.) falls are listed below. Most of the very high 24 hour falls (above 700 millimetres) have occurred in the coastal strip of Queensland, where a tropical cyclone moving close to mountainous terrain provides ideal conditions for spectacular falls.

HIGHEST DAILY RAINFALLS

State	Station	Date	Amount
			mm
New South Wales	Dorrigo (Myrtle Street)	21.2.1954	809
	Lowanna (Yalamurra)	22.4.1974	662
Victoria	Tanybryn	22.3.1983	375
	Nowa Nowa (Wairawa)	11.3.1906	275
Queensland(a)	Beerwah (Crohamhurst)	3.2.1893	907
	Finch Hatton PO	18.2.1958	878
South Australia	Motpena	14.3.1989	273
	Nilpena	14.3.1989	247
Western Australia	Roebourne (Whim Creek)	3.4.1898	747
	Broome (Kilto)	4.12.1970	635
Tasmania	Cullenswood	22.3.1974	352
	Mathinna	5.4.1929	337
Northern Territory	Roper Valley Station	15.4.1963	545
	Angurugu (Groote Eylandt)	28.3.1953	513

(a) Bellenden Ker (Top Station) has recorded a 24 hour total of 960 mm from 3 p.m. to 3 p.m. on the 3rd and 4th January 1979. The standard daily rainfall period is 9 a.m. to 9 a.m.

Source: Bureau of Meteorology.

The highest annual rainfalls are listed by State in the following table.

HIGHEST ANNUAL RAINFALLS

State	*Station*	*Year*	*Amount*
			mm
New South Wales	Tallowwood Point	1950	4,540
Victoria	Falls Creek SEC	1956	3,739
Queensland	Bellenden Ker (Top Station)	1979	11,251
South Australia	Aldgate State School	1917	1,853
Western Australia	Armadale (Jarrahdale PO)	1917	2,169
Tasmania	Lake Margaret	1948	4,504
Northern Territory	Elizabeth Downs	1973	2,966

Source: Bureau of Meteorology.

Thunderstorms and hail

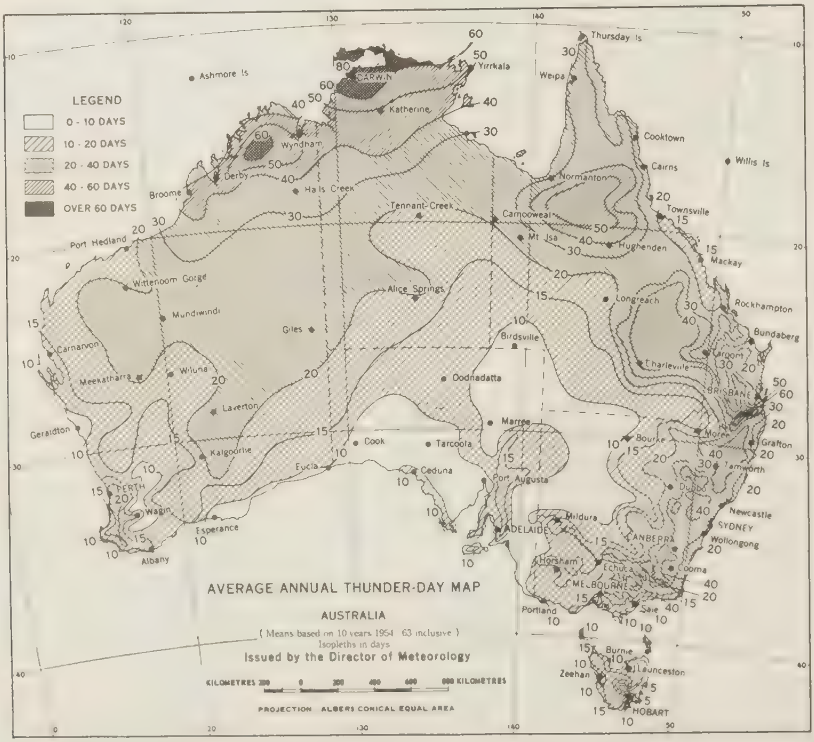

LEGEND
0 - 10 DAYS
10 - 20 DAYS
20 - 40 DAYS
40 - 60 DAYS
OVER 60 DAYS
AVERAGE ANNUAL THUNDER-DAY MAP
AUSTRALIA
(Means based on 10 years 1954 63 inclusive)
Isopleths in days
Issued by the Director of Meteorology
KILOMETRES 200 0 200 400 600 800 KILOMETRES
PROJECTION ALBERS CONICAL EQUAL AREA
Ashmore Is
Thursday Is
Yirrkala
DARWIN
Katherine
Weipa
Cooktown
Cairns
Willis Is
Wyndham
Derby
Broome
Halls Creek
Normanton
Townsville
Mackay
Port Hedland
Tennant Creek
Camooweal
Mt Isa
Hughenden
Wittenoom Gorge
Alice Springs
Longreach
Rockhampton
Mundiwindi
Giles
Birdsville
Bundaberg
Carnarvon
Charleville
Meekatharra
Wiluna
Oodnadatta
BRISBANE
Laverton
Marree
Moree
Geraldton
Kalgoorlie
Cook
Tarcoola
Bourke
Grafton
Eucla
Ceduna
Tamworth
Port Augusta
Dubbo
PERTH
Wagin
Esperance
Mildura
Newcastle
SYDNEY
Wollongong
Albany
ADELAIDE
CANBERRA
Horsham
Echuca
Cooma
MELBOURNE
Portland
Sale
Burnie
Launceston
Zeehan
HOBART

FIGURE 8

A thunderday at a given location is a calendar day on which thunder is heard at least once. Figure 8 shows isopleths (isobronts) of the average annual number of thunderdays which vary from 74 per year near Darwin to less than 10 per year over parts of the southern regions. Convectional processes during the summer wet season cause high thunderstorm incidence in northern Australia. The generally high incidence of thunderdays (40–60 annually) over the eastern upland areas is caused mainly by orographic uplift of moist air streams.

Hail, mostly of small size (less than 10 millimetres diameter), occurs with winter–spring cold frontal activity in southern Australia. Summer thunderstorms, particularly over the uplands of eastern Australia, sometimes produce large hail (greater than 10 millimetres diameter). Large hail capable of piercing light gauge galvanised iron occurs at irregular intervals and sometimes causes widespread damage.

Snow

Generally, snow covers much of the Australian Alps above 1,500 metres for varying periods from late autumn to early spring. Similarly, in Tasmania the mountains are covered fairly frequently above 1,000 metres in these seasons. The area, depth and duration are highly variable. In some years, snow falls in the altitude range of 500–1,000 metres. Snowfalls at levels below 500 metres are occasionally experienced in southern Australia, particularly in the foothill areas of Tasmania and Victoria, but falls are usually light and short lived. In some seasons, parts of the eastern uplands above 1,000 metres from Victoria to south-eastern Queensland have been covered with snow for several weeks. In ravines around Mount Kosciusko (2,228 metres) small areas of snow may persist through summer but there are no permanent snowfields.

Temperature

Average temperatures

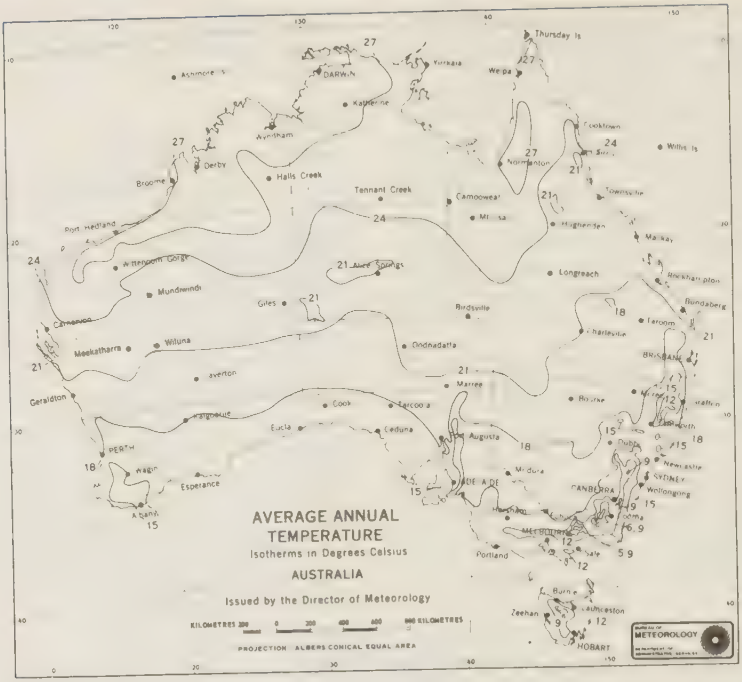
Average annual air temperatures, as shown in Figure 9, range from 28°C along the Kimberley coast in the extreme north of Western Australia to 4°C in the alpine areas of south-eastern Australia. Although annual temperature may be used for broad comparisons, monthly temperatures are required for detailed analyses.

July is the month with the lowest average temperature in all parts of the continent. The months with the highest average temperature are January or February in the south and December in the north (except in the extreme north and north-west where it is November). The slightly lower temperatures of mid-summer in the north are due to the increase in cloud during the wet season.

Average monthly maxima

Maps of average maximum and minimum temperatures for the months of January and July are shown in Figures 10 to 13 inclusive.

In January, average maximum temperatures exceed 35°C over a vast area of the interior and exceed 40°C over appreciable areas of the north-west. The consistently hottest part of Australia in terms of summer maxima is around Marble Bar in Western Australia (150 kilometres south-east of Port Hedland) where the average is 41°C and daily maxima during summer may exceed 40°C consecutively for several weeks at a time.


AVERAGE ANNUAL
TEMPERATURE
Isotherms in Degrees Celsius
AUSTRALIA
Issued by the Director of Meteorology
KILOMETRES 200 0 200 400 600 800 KILOMETRES
PROJECTION ALBERS CONICAL EQUAL AREA
BUREAU OF METEOROLOGY
Thursday Is
Ashmore Is
DARWIN
Katherine
Yirrkala
Weipa
Wyndham
Derby
Broome
Halls Creek
Tennant Creek
Camooweal
Mt Isa
Normanton
Cooktown
Cairns
Willis Is
Townsville
Hughenden
Mackay
Port Hedland
Wittenoom Gorge
Mundiwindi
Alice Springs
Giles
Longreach
Rockhampton
Bundaberg
Birdsville
Taroom
Charleville
Carnarvon
Meekatharra
Wiluna
Oodnadatta
BRISBANE
Laverton
Marree
Bourke
Moree
Grafton
Geraldton
Cook
Tarcoola
Kalgoorlie
Eucla
Ceduna
Port Augusta
Dubbo
Port Macquarie
PERTH
Wagin
Esperance
Albany
ADELAIDE
Mildura
Newcastle
SYDNEY
Wollongong
CANBERRA
Horsham
Cooma
MELBOURNE
Portland
Sale
Burnie
Zeehan
Launceston
HOBART
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21
18
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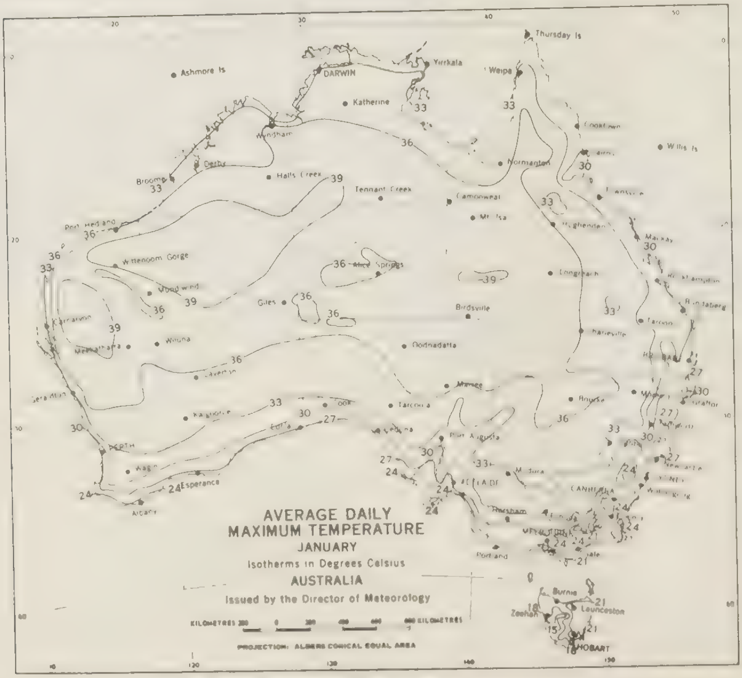
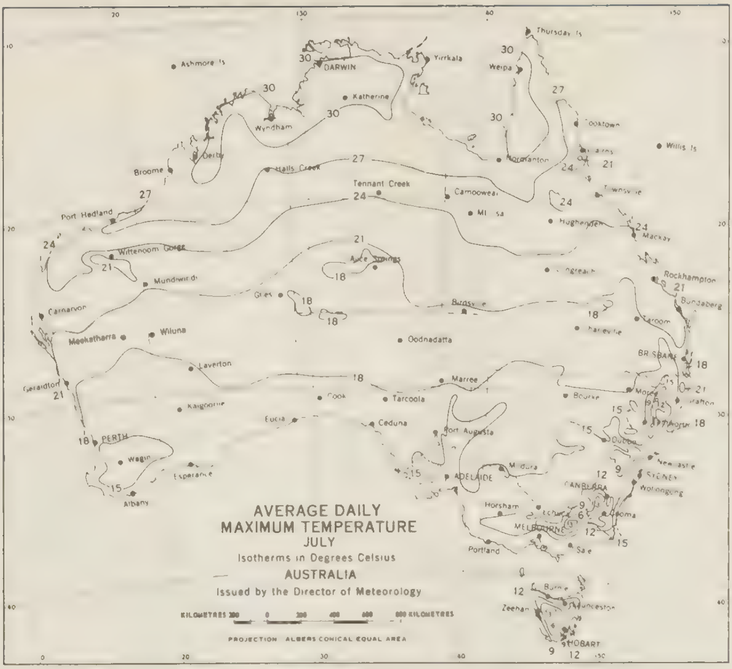
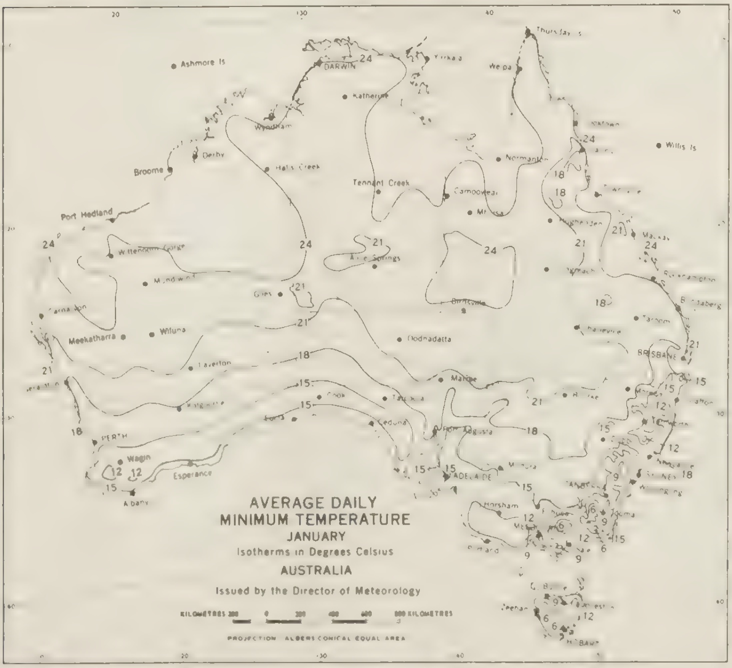
18
18
15
15
15
15
15
12
12
12
12
9
9
6.9
5.9
120
130
140
150
10
20
30
40


AVERAGE DAILY
MAXIMUM TEMPERATURE
JANUARY
Isotherms in Degrees Celsius
AUSTRALIA
Issued by the Director of Meteorology
KILOMETRES 200 0 200 400 600 800 KILOMETRES
PROJECTION: ALBERS CONICAL EQUAL AREA
Thursday Is
Ashmore Is
DARWIN
Yirrkala
Weipa
Katherine
Wyndham
Normanton
Cooktown
Cairns
Willis Is
Derby
Broome
Halls Creek
Tennant Creek
Camooweal
Mt Isa
Townsville
Hughenden
Port Hedland
Mackay
Wittenoom Gorge
Mundiwindi
Alice Springs
Longreach
Rockhampton
Giles
Bundaberg
Carnarvon
Birdsville
Taroom
Meekatharra
Wiluna
Charleville
Oodnadatta
BRISBANE
Laverton
Marree
Geraldton
Bourke
Moree
Grafton
Kalgoorlie
Cook
Tarcoola
Eucla
Ceduna
Port Augusta
PERTH
Wagin
Esperance
Albany
ADELAIDE
Mildura
CANBERRA
Horsham
MELBOURNE
Portland
Sale
Burnie
Zeehan
Launceston
HOBART
39
39
39
39
36
36
36
36
36
36
36
36
36
33
33
33
33
33
33
33
33
33
30
30
30
30
30
30
27
27
27
27
27
24
24
24
24
24
24
24
24
21
21
21
18
15
18
120
130
140
150
10
20
30
40

FIGURES 9 AND 10


AVERAGE DAILY
MAXIMUM TEMPERATURE
JULY
Isotherms in Degrees Celsius
AUSTRALIA
Issued by the Director of Meteorology
KILOMETRES 200 0 200 400 600 800 KILOMETRES
PROJECTION ALBERS CONICAL EQUAL AREA
Thursday Is
Ashmore Is
DARWIN
Yirrkala
Weipa
Katherine
Wyndham
Cooktown
Willis Is
Derby
Broome
Halls Creek
Normanton
Tennant Creek
Camooweal
Port Hedland
Mt Isa
Hughenden
Mackay
Wittenoom Gorge
Mundiwindi
Alice Springs
Rockhampton
Bundaberg
Giles
Birdsville
Carnarvon
Meekatharra
Wiluna
Oodnadatta
Laverton
Marree
Geraldton
Kalgoorlie
Cook
Tarcoola
Bourke
Eucla
Ceduna
Port Augusta
PERTH
Wagin
Esperance
ADELAIDE
Mildura
Albany
CANBERRA
Wollongong
Horsham
Echuca
Cooma
MELBOURNE
Portland
Sale
Burnie
Zeehan
Launceston
HOBART
30
27
24
21
18
15
12
9
6


AVERAGE DAILY
MINIMUM TEMPERATURE
JANUARY
Isotherms in Degrees Celsius
AUSTRALIA
Issued by the Director of Meteorology
KILOMETRES 200 0 200 400 600 800 KILOMETRES
PROJECTION ALBERS CONICAL EQUAL AREA
Ashmore Is
DARWIN
Weipa
Katherine
Wyndham
Willis Is
Derby
Broome
Halls Creek
Normanton
Tennant Creek
Camooweal
Port Hedland
Mt Isa
Hughenden
Wittenoom Gorge
Alice Springs
Mundiwindi
Giles
Birdsville
Carnarvon
Meekatharra
Wiluna
Oodnadatta
BRISBANE
Laverton
Marree
Kalgoorlie
Cook
Ceduna
Port Augusta
PERTH
Wagin
Esperance
ADELAIDE
Albany
Horsham
Zeehan
24
21
18
15
12
9
6

FIGURES 11 AND 12

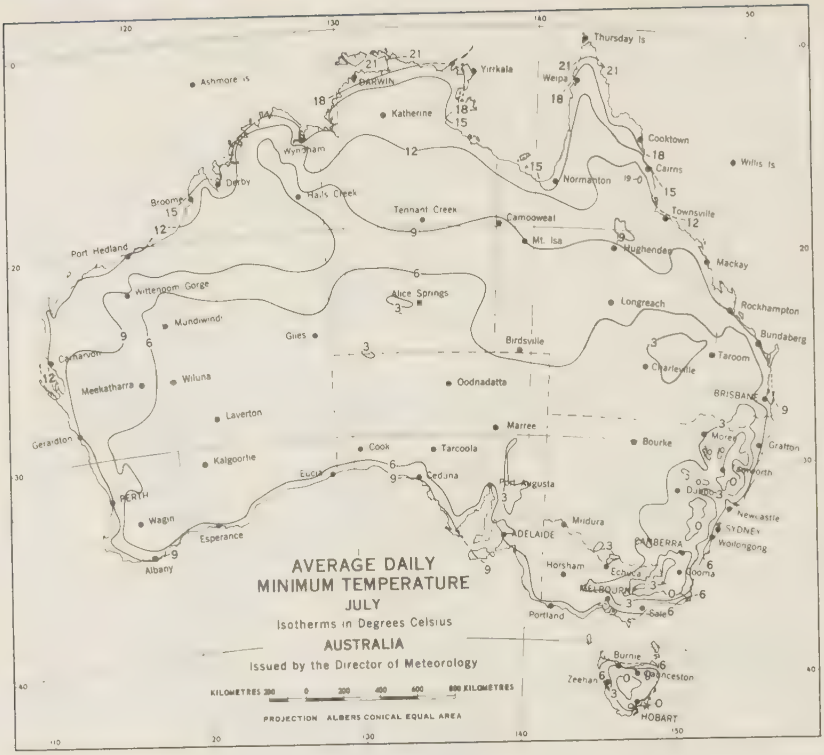

AVERAGE DAILY
MINIMUM TEMPERATURE
JULY
Isotherms in Degrees Celsius
AUSTRALIA
Issued by the Director of Meteorology
KILOMETRES 200 0 200 400 600 800 KILOMETRES
PROJECTION ALBERS CONICAL EQUAL AREA
Thursday Is
Ashmore Is
DARWIN
Yirrkala
Weipa
Katherine
Wyndham
Cooktown
Cairns
Willis Is
Derby
Halls Creek
Normanton
Townsville
Broome
Tennant Creek
Camooweal
Port Hedland
Mt. Isa
Hughenden
Mackay
Wittenoom Gorge
Alice Springs
Longreach
Rockhampton
Mundiwindi
Giles
Birdsville
Bundaberg
Carnarvon
Taroom
Meekatharra
Wiluna
Oodnadatta
Charleville
BRISBANE
Laverton
Marree
Geraldton
Cook
Tarcoola
Bourke
Moree
Grafton
Kalgoorlie
Eucla
Ceduna
Port Augusta
Armidale
Dubbo
PERTH
Wagin
Mildura
Newcastle
SYDNEY
Esperance
ADELAIDE
CANBERRA
Wollongong
Albany
Horsham
Echuca
Cooma
MELBOURNE
Sale
Portland
Burnie
Launceston
Zeehan
HOBART
21
18
15
12
9
6
3
0
-6

FIGURE 13

The marked gradients of isotherms of maximum temperature in summer in coastal areas, particularly along the south and west coasts, are due to the penetration inland of fresh sea-breezes initiated by the sharp temperature discontinuties between the land and sea surfaces. There are also gradients of a complex nature in south-east coastal areas caused primarily by the uplands.

In July, a more regular latitudinal distribution of average maxima is evident. Maxima range from 30°C near the north coast to 5°C in the alpine areas of the south-east.

Average monthly minima

In January, average minima range from 27°C on the north-west coast to 5°C in the alpine areas of the south-east. In July, average minima fall below 5°C in areas south of the tropics (away from the coasts). Alpine areas record the lowest temperatures; the July average is as low as –5°C.

Extreme maxima

Temperatures have exceeded 45°C at nearly all inland stations more than 150 kilometres from the coast and at many places on the north-west and south coasts. Temperatures have exceeded 50°C at some inland stations and at a few near the coast. It is noteworthy that Eucla on the south coast has recorded 50.7°C, the highest temperature in Western Australia. This is due to the long trajectory over land of hot north-west winds from the Marble Bar area. Although the highest temperature recorded in Australia was 53.1°C at Cloncurry (Queensland), more stations have exceeded 50°C in western New South Wales than in other areas due to the long land trajectory of hot winds from the north-west interior of the continent.

Extreme maximum temperatures recorded at selected stations, including the highest recorded in each State, are shown in the following table.

EXTREME MAXIMUM TEMPERATURES

Station	*°C*	*Date*	*Station*	*°C*	*Date*
New South Wales			Western Australia		
Bourke	52.8	17.1.1877	Eucla	50.7	22.1.1906
Wilcannia	50.0	11.1.1939	Mundrabilla	49.8	3.1.1979
Menindee	49.7	10.1.1939	Forrest	49.8	13.1.1979
Victoria			Madura	49.4	7.1.1971
Mildura	50.8	6.1.1906	Tasmania		
Swan Hill	49.4	18.1.1906	Bushy Park	40.8	26.12.1945
Queensland			Hobart	40.8	4.1.1976
Cloncurry	53.1	16.1.1889	Northern Territory		
Winton	50.7	14.12.1888	Finke	48.3	2.1.1960
Birdsville	49.5	24.12.1972	Jervois	47.5	3.1.1978
South Australia			Australian Capital Territory		
Oodnadatta	50.7	2.1.1960	Canberra (Acton)	42.8	11.1.1939
Marree	49.4	2.1.1960			
Whyalla	49.4	2.1.1960			

Source: Bureau of Meteorology.

Extreme minima

The lowest temperatures in Australia have been recorded in the Snowy Mountains, where Charlotte Pass (elevation 1,760 metres) has recorded −22.2°C on 14 July 1945 and 22 August 1947. Temperatures have fallen below −5°C at most inland places south of the tropics and at some places within a few kilometres of southern coasts. At Eyre, on the south coast of Western Australia, a minimum temperature of −4.3°C has been recorded, and at Swansea, on the east coast of Tasmania, the temperature has fallen as low as −5.0°C.

In the tropics, extreme minima below 0°C have been recorded at many places away from the coasts — as far north as Herberton, Queensland (−5.0°C). Even very close to the tropical coastline, temperatures have fallen to 0°C, a low recording being −0.8°C for Mackay.

The next table shows extreme minimum temperatures recorded at specified stations, including the lowest recorded in each State.

EXTREME MINIMUM TEMPERATURES

Station	*°C*	*Date*	*Station*	*°C*	*Date*
New South Wales			Western Australia		
Charlotte Pass	−22.2	14.7.1945	Booylgoo Springs	−6.7	12.7.1969
Kiandra	−20.6	2.8.1929	Wandering	−5.7	1.6.1964
Perisher Valley	−19.5	23.7.1979	Tasmania		
Victoria			Shannon	−13.0	30.6.1983
Mount Hotham	−12.8	30.7.1931	Butlers Gorge	−13.0	30.6.1983
Omeo	−11.7	15.6.1965	Tarraleah	−13.0	30.6.1983
Hotham Heights	−11.1	15.8.1968	Northern Territory		
Queensland			Alice Springs	−7.5	12.7.1976
Stanthorpe	−11.0	4.7.1895	Tempe Downs	−6.9	24.7.1971
Warwick	−10.6	12.7.1965	Australian Capital Territory		
Mitchell	−9.4	15.8.1979	Gudgenby	−14.6	11.7.1971
South Australia					
Yongala	−8.2	20.7.1976			
Yunta	−7.7	16.7.1976			
Ernabella	−7.6	19.7.1983			

Source: Bureau of Meteorology.

Heat waves

Periods with a number of successive days having a temperature higher than 40°C are relatively common in summer over parts of Australia. With the exception of the north-west coast of Western Australia, however, most coastal areas rarely experience more than three successive days of such conditions. The frequency increases inland, and periods of up to ten successive days have been recorded at many inland stations. This figure increases in western Queensland and north-west Western Australia to more than twenty days in places. The central part of the Northern Territory and the Marble Bar–Nullagine area of Western Australia have recorded the most prolonged heat waves. Marble Bar is the only station in the world where temperatures of more than 37.8°C (100°F) have been recorded on as many as 161 consecutive days (30 October 1923 to 7 April 1924).

Heat waves are experienced in the coastal areas from time to time. During 11–14 January 1939, e.g., a severe heat wave affected south-eastern Australia: Adelaide had a record of 47.6°C on the 12th, Melbourne a record of 45.6°C on the 13th and Sydney a record of 45.3°C on the 14th.

The Kimberley district of Western Australia is the consistently hottest part of Australia in terms of annual average maximum temperature. Wyndham, e.g., has an annual average maximum of 35.6°C.

Other aspects of climate

Frost

Frost can cause serious losses of agricultural crops, and numerous climatic studies have been made in Australia relating to specific crops cultivated in local areas.

Under calm conditions, overnight temperatures at ground level are often as much as 5°C lower than those measured in the instrument screen (base height 1.1 metre) and differences of 10°C have been recorded. Only a small number of stations measure minima at ground level, the lowest recordings being –15.1°C at Canberra and –11.0°C at Stanthorpe (Queensland). Lower readings may be recorded in alpine areas.

Frost frequency depends on location and orography, and even on minor variations in the contour of the land. The parts of Australia which are most subject to frost are the eastern uplands from north-eastern Victoria to the western Darling Downs in southern Queensland. Most stations in this region experience more than ten nights a month with readings of 0°C (or under) for three to five months of the year. On Tasmania's Central Plateau similar conditions occur for three to six months of the year. Frosts may occur within a few miles of the coasts except in the Northern Territory and most of the north Queensland coasts.

Regions in which frosts may occur at any time of the year comprise most of Tasmania, large areas of the tablelands of New South Wales, much of inland Victoria, particularly the north-east, and a small part of the extreme south-west of Western Australia. Over most of the interior of the continent, and on the highlands of Queensland as far north as the Atherton Plateau, frosts commence in April and end in September. Minimum temperatures below 0°C are experienced in most of the subtropical interior in June and July.

The length of the frost period for the year is taken as the number of days between the first and last recording of an air temperature of 2°C or less. The median duration of the frost period in days per year is shown in Figure 14.

The median frost period over the continent varies from over 200 days per year in the south-eastern uplands areas south of the Hunter Valley, to zero days in northern Australia. In the southern regions of the continent, the annual frost period generally decreases from about 100 days inland to below 50 days towards the coast. However, there are appreciable spatial variations depending mainly on local orography. In Tasmania the frost period exceeds 300 days on the uplands and decreases to 100 days near the coast.

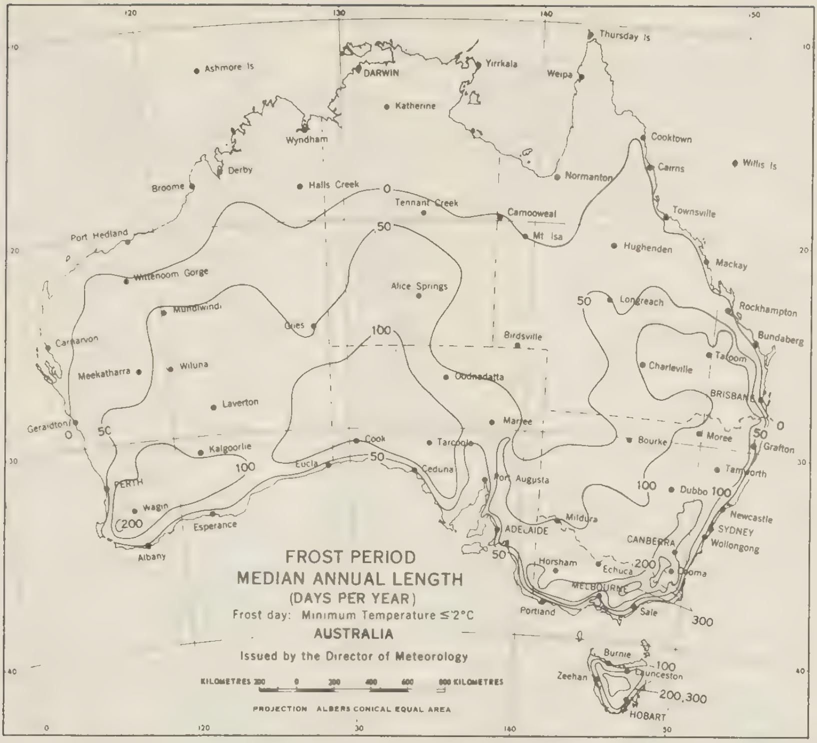

FROST PERIOD
MEDIAN ANNUAL LENGTH
(DAYS PER YEAR)
Frost day: Minimum Temperature ≤2°C
AUSTRALIA
Issued by the Director of Meteorology
KILOMETRES 200 0 200 400 600 800 KILOMETRES
PROJECTION ALBERS CONICAL EQUAL AREA
Thursday Is
Ashmore Is
DARWIN
Yirrkala
Weipa
Katherine
Wyndham
Cooktown
Derby
Cairns
Willis Is
Broome
Halls Creek
Normanton
Tennant Creek
Townsville
Camooweal
Port Hedland
Mt Isa
Hughenden
Mackay
Wittenoom Gorge
Alice Springs
Longreach
Rockhampton
Mundiwindi
Giles
Birdsville
Bundaberg
Carnarvon
Charleville
Taroom
Meekatharra
Wiluna
Oodnadatta
BRISBANE
Laverton
Marree
Geraldton
Moree
Kalgoorlie
Cook
Tarcoola
Bourke
Grafton
Eucla
Ceduna
Tamworth
PERTH
Port Augusta
Dubbo
Wagin
Mildura
Newcastle
Esperance
ADELAIDE
SYDNEY
Albany
CANBERRA
Wollongong
Horsham
Echuca
Cooma
MELBOURNE
Portland
Sale
Burnie
Zeehan
Launceston
HOBART
0
50
100
200
300
200,300

FIGURE 14

More strictly, a frost is taken as corresponding to a minimum screen temperature of 2.2°C or less. A light frost is said to occur when the screen minimum temperature is greater than 0°C but less than or equal to 2.2°C. A heavy frost corresponds to a minimum temperature of 0°C or less.

The table below includes the average annual frequency of minima of 2.2°C or less for a wide selection of stations, particularly those prone to frosts. These data show the high spatial variability of frost frequency across Australia. The south-eastern alpine areas, as represented by Kiandra (elevation 1,400 metres), have a frequency exceeding 200. At Kalgoorlie the average annual frequency is 20.4 days, at Alice Springs 32.7, Charleville 32.3, Canberra 101.1 and Essendon Airport (Melbourne) 14.2.

FROST FREQUENCY

Station	*Period of record*	*Elevation (metres)*	*Average number of frosty nights ≤2.2°C*	*Average number of heavy frosts ≤0°C*
Adelaide Airport	1956–90	6.0	5.8	0.8
Alice Springs	1942–90	537.0	31.7	12.2
Ballan	1957–68	442.0	62.3	20.5
Birdsville	1957–90	47.0	4.3	0.3
Brisbane Airport	1950–90	4.0	0.2	0.0
Canberra Airport	1940–90	571.0	99.8	62.1
Ceduna Airport	1943–90	15.0	18.2	4.0
Charleville Airport	1943–90	306.0	31.7	12.6
Essendon Airport (Melbourne)	1940–70	86.0	14.2	2.6
Hobart	1944–90	55.2	11.4	1.6
Kalgoorlie Airport	1943–90	360.0	20.4	4.7
Kiandra	1957–68	1,395.4	228.3	176.7
Mount Gambier Airport	1943–90	63.0	24.4	6.3
Perth Airport	1945–90	20.0	2.9	0.2
Walgett	1957–89	132.0	22.4	5.3

Source: Bureau of Meteorology.

The regions of mainland Australia most prone to heavy frosts are the eastern uplands and adjacent areas extending from Victoria through New South Wales to south-eastern Queensland. Stations above 1,000 metres in altitude in the southern parts of these uplands have more than 100 heavy frosts annually, and in the upland areas below 1,000 metres the annual frequency ranges from 100 to about 20. Over the remainder of southern Queensland, New South Wales and Victoria, although there are great spatial variations, the average annual frequency of heavy frosts typically ranges from about 20 inland to 10 towards the coast.

In Tasmania, uplands above 1,000 metres have more than 100 heavy frosts annually and, in neighbouring areas, the frequency is about 100 decreasing to 20 towards the coasts. Even some coastal stations have a relatively high frequency (Swansea, e.g., has 15.7).

The southern half of Western Australia, the whole of South Australia, and the Alice Springs district of the Northern Territory experience heavy frosts. Differences in annual frequencies between places are great but in general the frequency is about 10 inland decreasing towards the coasts. Some places average more than 20 heavy frosts annually, notably Wandering, Western Australia (21.5) and Yongala, South Australia (41.8). At Alice Springs the annual average frequency is 11.9.

Humidity

Australia is a dry continent in terms of the water vapour content or humidity of the air and this element may be compared with evaporation to which it is related. Humidity is measured at Bureau of Meteorology observational stations by a pair of dry and wet-bulb thermometers mounted in a standard instrument screen. These measurements enable moisture content to be expressed by a number of parameters, the most commonly known being relative humidity.

Relative humidity at a given temperature is the ratio (expressed as a percentage) of actual vapour pressure to the saturated vapour pressure at that temperature. As a single measure of human discomfort, relative humidity is of limited value because it must be related to the temperature at the time.

Since the temperature at 9 a.m. approximates the mean temperature for the day (24 hours), the relative humidity at 9 a.m. may be taken as an estimate of the mean relative humidity for the day. Relative humidity at 3 p.m. occurs around the warmest part of the day on the average and is representative of the lowest daily values. Relative humidity on average is at a maximum in the early morning when air temperature is minimal.

Relative humidity isopleths for January and July at 9 a.m. and 3 p.m. shown in Figures 15–18 are extracted from the *Climatic Atlas of Australia, 1988.*

The main features of the relative humidity pattern are:

- over the interior of the continent there is a marked dryness during most of the year, notably towards the northern coast in the dry season (May–October);
- the coastal fringes are comparatively moist, although this is less evident along the north-west coast of Western Australia where continental effects are marked;
- in northern Australia, the highest values occur during the summer wet season (December–February) and the lowest during the winter dry season (June–August); and
- in most of southern Australia the highest values are experienced in the winter rainy season (June–August) and the lowest in summer (December–February).

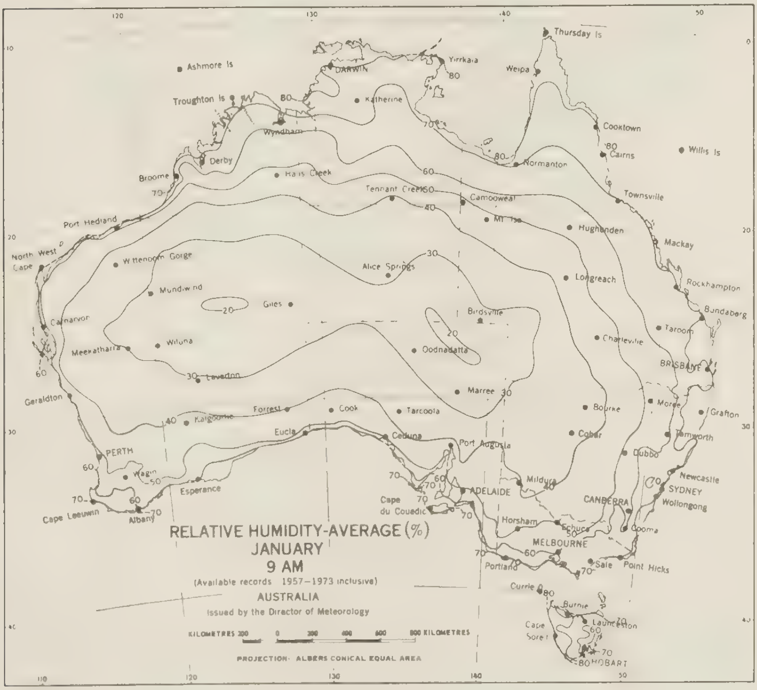
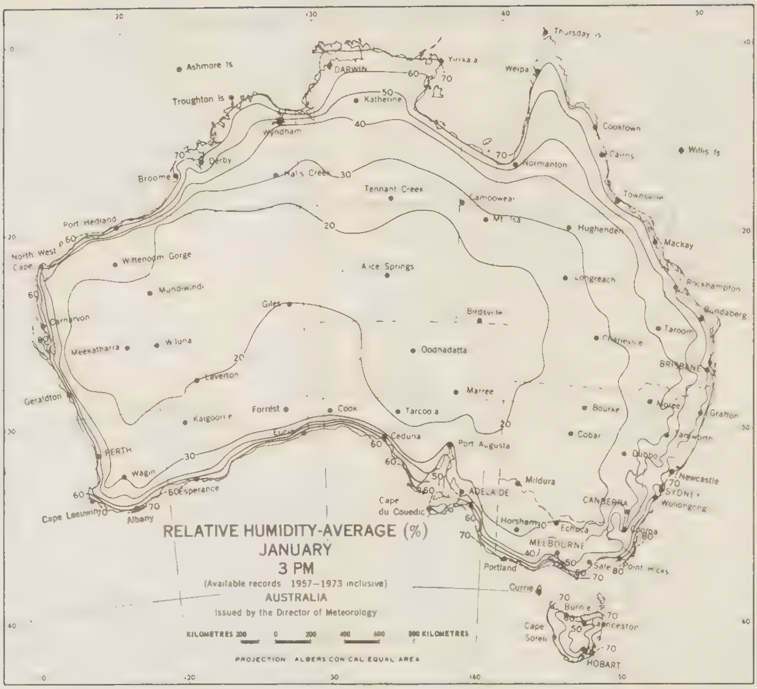
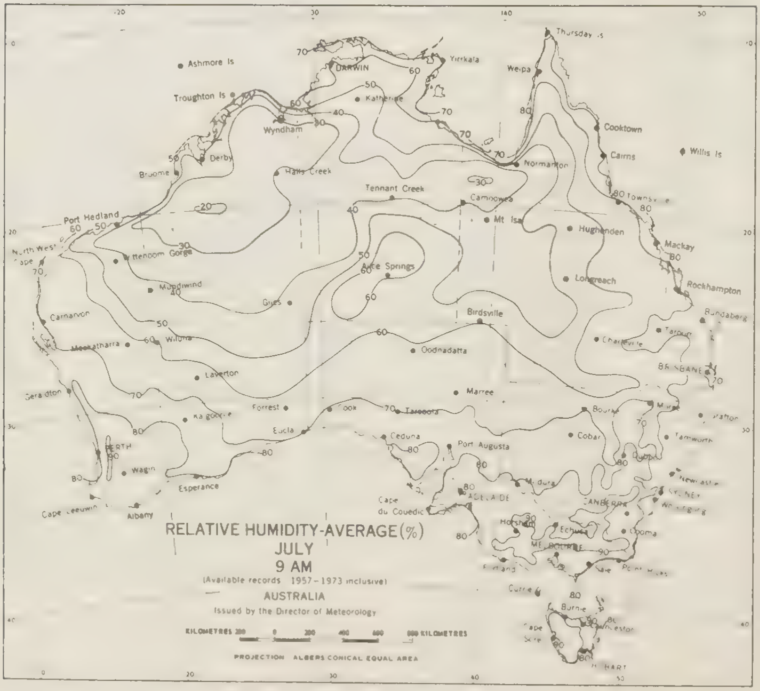

RELATIVE HUMIDITY-AVERAGE (%)
JANUARY
9 AM
(Available records 1957–1973 inclusive)
AUSTRALIA
Issued by the Director of Meteorology
KILOMETRES 200 0 200 400 600 800 KILOMETRES
PROJECTION: ALBERS CONICAL EQUAL AREA
120
130
140
150
110
10
20
30
40
Thursday Is
Ashmore Is
DARWIN
Yirrkala
Weipa
Troughton Is
Katherine
Wyndham
Cooktown
Cairns
Willis Is
Derby
Broome
Halls Creek
Normanton
Tennant Creek
Camooweal
Townsville
Port Hedland
Mt Isa
Hughenden
Mackay
North West Cape
Wittenoom Gorge
Alice Springs
Longreach
Rockhampton
Mundiwindi
Giles
Birdsville
Bundaberg
Carnarvon
Wiluna
Oodnadatta
Charleville
Taroom
Meekatharra
Laverton
BRISBANE
Geraldton
Marree
Bourke
Moree
Grafton
Kalgoorlie
Forrest
Cook
Tarcoola
Cobar
Tamworth
Eucla
Ceduna
Port Augusta
Dubbo
PERTH
Wagin
Mildura
Newcastle
Esperance
ADELAIDE
SYDNEY
Cape Leeuwin
Albany
Cape du Couedic
CANBERRA
Wollongong
Horsham
Echuca
Cooma
MELBOURNE
Portland
Sale
Point Hicks
Currie
Burnie
Launceston
Cape Sorell
HOBART
20
30
40
50
60
70
80

FIGURE 15


RELATIVE HUMIDITY-AVERAGE (%)
JANUARY
3 PM
(Available records 1957–1973 inclusive)
AUSTRALIA
Issued by the Director of Meteorology
KILOMETRES 200 0 200 400 600 800 KILOMETRES
PROJECTION ALBERS CONICAL EQUAL AREA
Ashmore Is
Troughton Is
DARWIN
Katherine
Yirrkala
Weipa
Thursday Is
Wyndham
Derby
Broome
Halls Creek
Tennant Creek
Camooweal
Mt Isa
Normanton
Cooktown
Cairns
Willis Is
Townsville
Hughenden
Mackay
Port Hedland
North West Cape
Wittenoom Gorge
Alice Springs
Longreach
Rockhampton
Mundiwindi
Giles
Birdsville
Bundaberg
Carnarvon
Meekatharra
Wiluna
Oodnadatta
Charleville
Taroom
BRISBANE
Laverton
Marree
Geraldton
Forrest
Cook
Tarcoola
Bourke
Moree
Grafton
Kalgoorlie
Eucla
Ceduna
Port Augusta
Cobar
Tamworth
PERTH
Wagin
Esperance
Albany
Cape Leeuwin
Dubbo
Mildura
Newcastle
SYDNEY
Wollongong
Cape du Couedic
ADELAIDE
CANBERRA
Horsham
Echuca
Cooma
MELBOURNE
Portland
Sale
Point Hicks
Currie
Burnie
Launceston
Cape Sorell
HOBART


RELATIVE HUMIDITY-AVERAGE (%)
JULY
9 AM
(Available records 1957–1973 inclusive)
AUSTRALIA
Issued by the Director of Meteorology
KILOMETRES 200 0 200 400 600 800 KILOMETRES
PROJECTION ALBERS CONICAL EQUAL AREA

FIGURES 16 AND 17

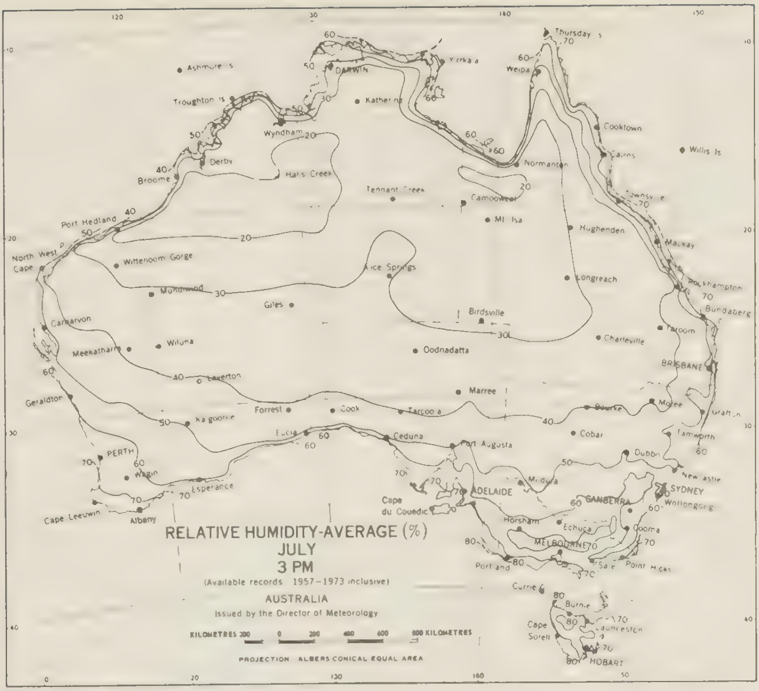

RELATIVE HUMIDITY-AVERAGE (%)
JULY
3 PM
(Available records 1957–1973 inclusive)
AUSTRALIA
Issued by the Director of Meteorology
KILOMETRES 200 0 200 400 600 800 KILOMETRES
PROJECTION ALBERS CONICAL EQUAL AREA
Ashmore Is
Troughton Is
DARWIN
Katherine
Wyndham
Derby
Broome
Halls Creek
Tennant Creek
Camooweal
Mt Isa
Normanton
Weipa
Thursday Is
Cooktown
Cairns
Willis Is
Townsville
Hughenden
Mackay
Rockhampton
Bundaberg
Longreach
Charleville
Taroom
BRISBANE
Port Hedland
North West Cape
Wittenoom Gorge
Mundiwindi
Giles
Alice Springs
Birdsville
Oodnadatta
Carnarvon
Meekatharra
Wiluna
Laverton
Marree
Geraldton
Kalgoorlie
Forrest
Cook
Tarcoola
Bourke
Moree
Grafton
Eucla
Ceduna
Port Augusta
Cobar
Tamworth
Dubbo
PERTH
Wagin
Esperance
Cape Leeuwin
Albany
Cape du Couedic
ADELAIDE
Mildura
Newcastle
SYDNEY
Wollongong
CANBERRA
Horsham
Echuca
Cooma
MELBOURNE
Portland
Sale
Point Hicks
Currie
Burnie
Launceston
Cape Sorell
HOBART
120
130
140
150
10
20
30
40

FIGURE 18

The tables below contain average relative humidity at 9 a.m. and 3 p.m. for each month and the year, for selected stations.

AVERAGE RELATIVE HUMIDITY AT 9 A.M.
(per cent)

Station	*Period of record*	*Jan.*	*Feb.*	*Mar.*	*Apr.*	*May*	*June*	*July*	*Aug.*	*Sept.*	*Oct.*	*Nov.*	*Dec.*	*Year*
Alice Springs	1941–89	33	39	40	46	56	65	60	47	34	30	28	30	42
Armidale	1907–87	63	69	71	73	78	80	77	71	61	57	56	57	68
Broome	1939–89	70	73	69	56	49	48	46	44	48	53	58	64	56
Carnarvon	1945–89	58	58	56	57	59	69	69	63	54	51	54	57	59
Ceduna	1939–89	53	59	60	66	76	81	80	75	63	54	50	51	64
Charleville	1942–89	46	52	52	53	63	71	66	56	44	40	37	39	52
Cloncurry	1939–75	52	60	52	45	47	51	45	37	31	31	31	40	43
Esperance	1969–89	57	60	64	70	74	78	77	74	68	61	59	57	67
Halls Creek	1944–89	51	55	45	34	35	34	30	25	22	25	29	40	36
Kalgoorlie	1939–89	44	51	53	59	68	74	74	66	54	47	44	43	56
Katanning	1957–89	56	63	66	75	83	88	88	86	80	68	59	56	72
Kiandra	1907–74	61	66	72	79	84	89	90	87	76	67	62	62	75
Marble Bar	1937–89	44	47	40	34	39	43	39	32	27	26	26	32	36
Mildura	1946–89	50	55	59	70	82	88	86	79	67	57	52	48	66
Mundiwindi	1938–81	31	35	34	37	44	53	49	39	28	23	22	23	35
Thursday Island	1950–89	84	86	85	82	81	81	80	78	75	73	73	78	80
Townsville	1940–89	72	75	73	69	68	66	67	63	60	61	63	66	67

Source: Bureau of Meteorology.

AVERAGE RELATIVE HUMIDITY AT 3 P.M.
(per cent)

Station	*Period of record*	*Jan.*	*Feb.*	*Mar.*	*Apr.*	*May*	*June*	*July*	*Aug.*	*Sept.*	*Oct.*	*Nov.*	*Dec.*	*Year*
Alice Springs	1941–89	20	23	23	25	31	34	30	24	19	19	18	19	23
Armidale	1909–87	44	47	47	48	52	56	52	47	42	42	40	41	46
Broome	1939–89	65	66	59	43	38	36	33	33	42	52	57	60	49
Carnarvon	1945–89	59	58	57	56	52	53	52	52	52	53	55	58	54
Ceduna	1939–89	42	45	45	45	51	54	55	50	45	43	40	42	46
Charleville	1942–89	27	32	32	31	36	39	35	29	24	23	21	23	29
Cloncurry	1939–75	32	38	34	29	29	30	26	22	20	19	19	24	27
Esperance	1969–89	56	58	58	57	58	60	59	57	57	56	57	57	57
Halls Creek	1944–89	33	37	31	25	26	24	22	18	17	17	20	27	25
Kalgoorlie	1939–89	24	29	31	37	43	49	47	39	31	27	25	23	33
Katanning	1957–89	30	33	37	47	57	67	66	62	56	44	36	30	46
Kiandra	1912–74	50	52	55	61	70	75	78	73	62	58	54	51	62
Marble Bar	1937–89	25	28	24	23	27	27	25	20	17	16	16	19	23
Mildura	1946–89	26	29	33	40	51	57	54	47	39	34	29	26	39
Mundiwindi	1938–81	19	22	21	22	27	32	28	22	15	13	13	14	20
Thursday Island	1951–89	78	81	79	74	71	69	67	65	65	64	66	71	71
Townsville	1940–89	66	67	65	60	57	51	51	51	52	55	58	60	58

Source: Bureau of Meteorology.

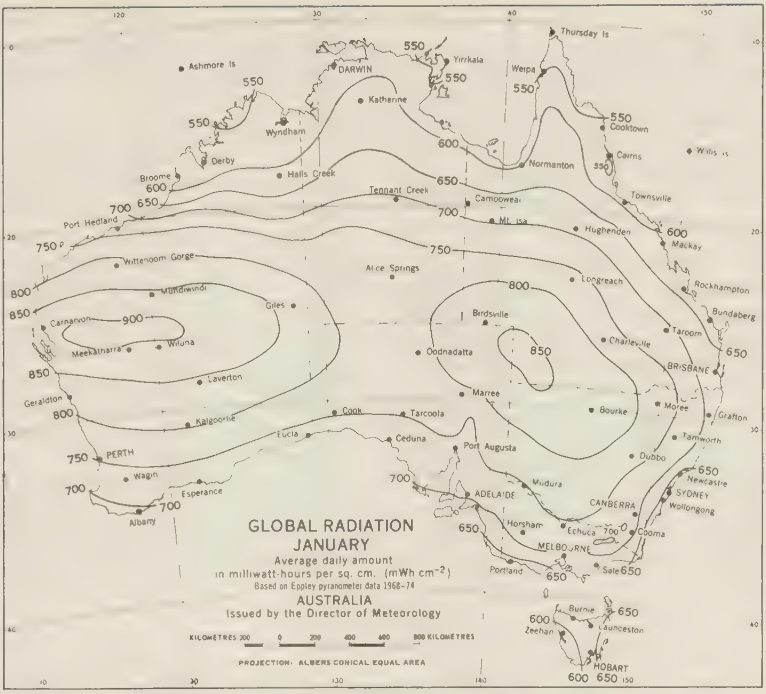
Relative humidity is dependent on temperature and if the water content of the air remains constant, relative humidity decreases with increasing temperature. For instance Perth, for January, has a mean 9 a.m. relative humidity of 50 per cent, but for 3 p.m., when the mean temperature is higher, the mean relative humidity is 41 per cent.

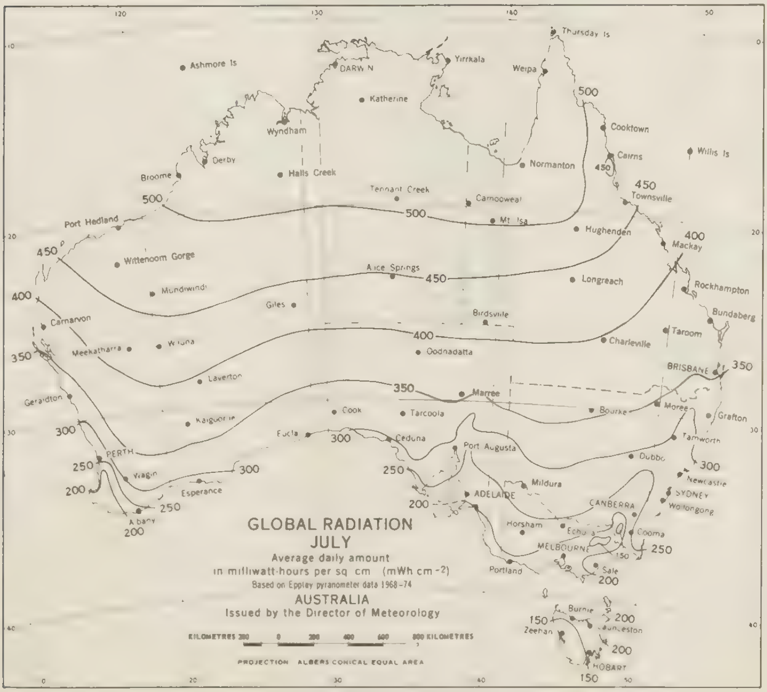
Global radiation

Global (short wave) radiation includes that radiation energy reaching the ground directly from the sun and that received indirectly from the sky, scattered downwards by clouds, dust particles, etc.

Figures 19 and 20 show the average global radiation for the months of January and July.

A high correlation exists between daily global radiation (Figures 19 and 20) and daily hours of sunshine (Figures 21 and 22). On the north-west coast around Port Hedland, where average daily global radiation is the highest for Australia (640 milliwatt hours), average daily sunshine is also highest, being approximately 10 hours. Sunshine is more dependent on variations in cloud coverage than is global radiation, since the latter includes diffuse radiation from the sky as well as direct radiation from the sun. An example is Darwin where, in the dry month of July, sunshine approaches twice that of the wet (cloudy) month of January but global radiation amounts for the two months are comparable.


GLOBAL RADIATION
JANUARY
Average daily amount
in milliwatt-hours per sq. cm. (mWh cm-2)
Based on Eppley pyranometer data 1968–74
AUSTRALIA
Issued by the Director of Meteorology
KILOMETRES 200 0 200 400 600 800 KILOMETRES
PROJECTION: ALBERS CONICAL EQUAL AREA
Thursday Is
Ashmore Is
DARWIN
Yirrkala
Weipa
Katherine
Wyndham
Derby
Broome
Halls Creek
Cooktown
Cairns
Willis Is
Normanton
Tennant Creek
Camooweal
Mt. Isa
Townsville
Port Hedland
Hughenden
Mackay
Wittenoom Gorge
Alice Springs
Longreach
Rockhampton
Mundiwindi
Giles
Birdsville
Bundaberg
Carnarvon
Wiluna
Meekatharra
Oodnadatta
Charleville
Taroom
Laverton
BRISBANE
Geraldton
Marree
Bourke
Moree
Grafton
Kalgoorlie
Cook
Tarcoola
Eucla
Ceduna
Tamworth
Port Augusta
Dubbo
PERTH
Wagin
Mildura
Newcastle
SYDNEY
Wollongong
Esperance
ADELAIDE
CANBERRA
Albany
Horsham
Echuca
Cooma
MELBOURNE
Portland
Sale
Burnie
Zeehan
Launceston
HOBART
550
600
650
700
750
800
850
900


GLOBAL RADIATION
JULY
Average daily amount
in milliwatt-hours per sq cm (mWh cm -2)
Based on Eppley pyranometer data 1968–74
AUSTRALIA
Issued by the Director of Meteorology
KILOMETRES 200 0 200 400 600 800 KILOMETRES
PROJECTION ALBERS CONICAL EQUAL AREA
Thursday Is
Ashmore Is
DARWIN
Yirrkala
Weipa
Katherine
Wyndham
Derby
Broome
Halls Creek
Cooktown
Cairns
Willis Is
Normanton
Tennant Creek
Camooweal
Mt Isa
Townsville
Port Hedland
Hughenden
Mackay
Wittenoom Gorge
Alice Springs
Longreach
Rockhampton
Mundiwindi
Giles
Birdsville
Bundaberg
Carnarvon
Wiluna
Meekatharra
Oodnadatta
Charleville
Taroom
Laverton
BRISBANE
Geraldton
Marree
Bourke
Moree
Grafton
Kalgoorlie
Cook
Tarcoola
Eucla
Ceduna
Tamworth
Port Augusta
Dubbo
PERTH
Wagin
Mildura
Newcastle
SYDNEY
Wollongong
Esperance
ADELAIDE
CANBERRA
Albany
Horsham
Echuca
Cooma
MELBOURNE
Portland
Sale
Burnie
Zeehan
Launceston
HOBART
150
200
250
300
350
400
450
500

FIGURES 19 AND 20

Sunshine

Sunshine as treated here refers to bright or direct sunshine. Australia receives relatively large amounts of sunshine although seasonal cloud formations have a notable effect on its spatial and temporal distribution. Cloud cover reduces both incoming and outgoing radiation and thus affects sunshine, air temperature and other climatic elements at the earth's surface.

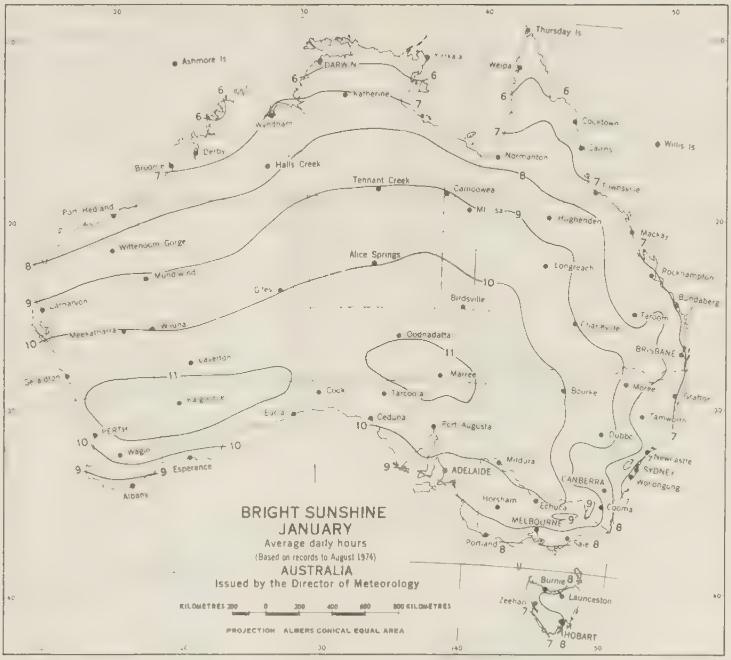
Average daily sunshine (hours) in January and July based on all available data to August 1974 is shown in Figures 21 and 22. Sunshine for April and October and annual amounts are included in the *Climatic Atlas of Australia, 1988*. In areas where there is a sparsity of data, estimates of sunshine derived from cloud data are used. Most of the continent receives more than 3,000 hours of sunshine a year, or nearly 70 per cent of the total possible. In central Australia and the mid-west coast of Western Australia, totals slightly in excess of 3,500 hours occur. Totals of less than 1,750 hours occur on the west coast and highlands of Tasmania; this amount is only 40 per cent of the total possible per year (about 4,380 hours).

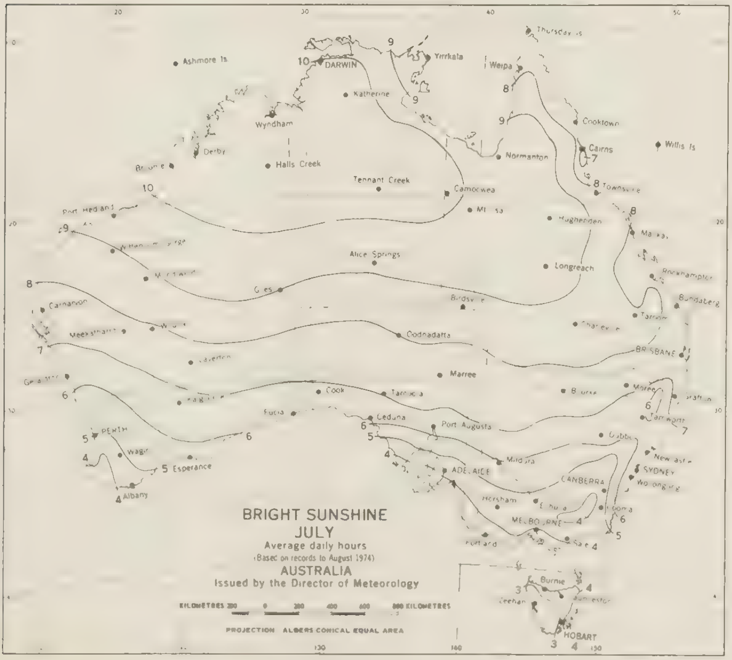
In southern Australia the duration of sunshine is greatest about December when the sun is at its highest elevation, and lowest in June when the sun is lowest. In northern Australia sunshine is generally greatest about August–October prior to the wet season, and least about January–March during the wet season. The table below gives the 20, 50 and 80 percentiles of daily bright sunshine for the months of January and July at selected stations. These values give an indication of the variability of daily sunshine hours. Perth, e.g., has a high variability of daily sunshine hours in the wet month of July and a low variability in the dry month of January. Darwin has a low variability in the dry season month of July and a high variability in the wet season month of January.

BRIGHT SUNSHINE, VARIABILITY OF DAILY HOURS
(20, 50 and 80 percentile values)

		January percentile			*July percentile*		
Station	*Period of record*	*20*	*50*	*80*	*20*	*50*	*80*
Adelaide	1955–1986	6.8	11.9	13.3	1.1	4.0	7.3
Alice Springs	1954–1986	7.8	11.8	13.0	7.6	10.4	10.7
Brisbane	1951–1985	2.6	8.4	11.5	4.5	9.0	9.9
Canberra	1978–1986	7.0	11.3	12.7	2.4	6.4	8.3
Darwin	1951–1986	1.5	5.9	9.4	9.8	10.6	10.9
Hobart	1950–1986	4.3	8.7	12.1	1.5	4.4	7.2
Melbourne	1955–1986	5.5	9.9	12.6	0.8	3.6	6.3
Perth	1942–1986	9.2	12.0	12.7	2.5	5.4	8.6
Sydney	1955–1986	1.9	8.1	11.6	3.2	7.5	9.3
Townsville	1943–1986	3.0	9.0	11.3	6.7	10.0	10.6

Source: Bureau of Meteorology.


BRIGHT SUNSHINE
JANUARY
Average daily hours
(Based on records to August 1974)
AUSTRALIA
Issued by the Director of Meteorology
KILOMETRES 200 0 200 400 600 800 KILOMETRES
PROJECTION ALBERS CONICAL EQUAL AREA
Thursday Is
Ashmore Is
DARWIN
Katherine
Wyndham
Derby
Broome
Halls Creek
Weipa
Cooktown
Cairns
Willis Is
Normanton
Tennant Creek
Camooweal
Mt Isa
Hughenden
Townsville
Mackay
Port Hedland
Wittenoom Gorge
Alice Springs
Longreach
Rockhampton
Meekatharra
Carnarvon
Giles
Birdsville
Bundaberg
Wiluna
Oodnadatta
Charleville
Taroom
BRISBANE
Laverton
Marree
Geraldton
Cook
Tarcoola
Bourke
Moree
Grafton
Kalgoorlie
Eucla
Ceduna
Port Augusta
Tamworth
PERTH
Dubbo
Wagin
Esperance
Mildura
ADELAIDE
Newcastle
SYDNEY
Wollongong
Albany
CANBERRA
Horsham
Echuca
Cooma
MELBOURNE
Portland
Sale
Burnie
Zeehan
Launceston
HOBART


BRIGHT SUNSHINE
JULY
Average daily hours
(Based on records to August 1974)
AUSTRALIA
Issued by the Director of Meteorology
KILOMETRES 200 0 200 400 600 800 KILOMETRES
PROJECTION ALBERS CONICAL EQUAL AREA
Thursday Is
Ashmore Is
DARWIN
Yirrkala
Weipa
Katherine
Wyndham
Cooktown
Cairns
Willis Is
Derby
Normanton
Broome
Halls Creek
Tennant Creek
Camooweal
Townsville
Mt Isa
Hughenden
Port Hedland
Mackay
Alice Springs
Longreach
Rockhampton
Giles
Bundaberg
Carnarvon
Birdsville
Taroom
Meekatharra
Charleville
Oodnadatta
BRISBANE
Laverton
Marree
Geraldton
Cook
Tarcoola
Bourke
Moree
Grafton
Eucla
Ceduna
Port Augusta
Tamworth
PERTH
Dubbo
Wagin
Esperance
Newcastle
SYDNEY
Mildura
ADELAIDE
Wollongong
Albany
CANBERRA
Horsham
Echuca
Cooma
MELBOURNE
Portland
Sale
Burnie
Zeehan
Launceston
HOBART

FIGURES 21 AND 22

Evaporation

Evaporation is determined by measuring the amount of water evaporated from a free water surface exposed in a pan. Evaporation from a free water surface depends on a number of climatic elements, mainly temperature, humidity and wind. Evaporation data are useful in water conservation studies and estimating potential evapotranspiration for irrigation and plant growth studies. In Australia, where surface water storage is vital over large areas, evaporation is a highly significant element.

Average January, July and annual (Class A) pan evaporation is mapped in Figures 23, 24 and 25 respectively. Evaporation maps for other months of the year and a more comprehensive commentary are given in the *Climatic Atlas of Australia, 1988.*

Due to the relatively short records at some stations, the maps may not be representative of climate averages in some areas. Dashed isopleths on the maps over some coastal fringes to aid interpolation do not represent evaporation from ocean surfaces or expanses of water.

Evaporation varies markedly with exposure of the instrument. Sheltering from wind and shading of pans cause local variations in measured evaporation of as much as 25 per cent. Instruments near expanses of water such as coastal inlets, rivers, reservoirs or irrigation systems may record lower evaporation than the surrounding country due to local effects on meteorological elements, notably humidity. Such reductions are about five to ten per cent.

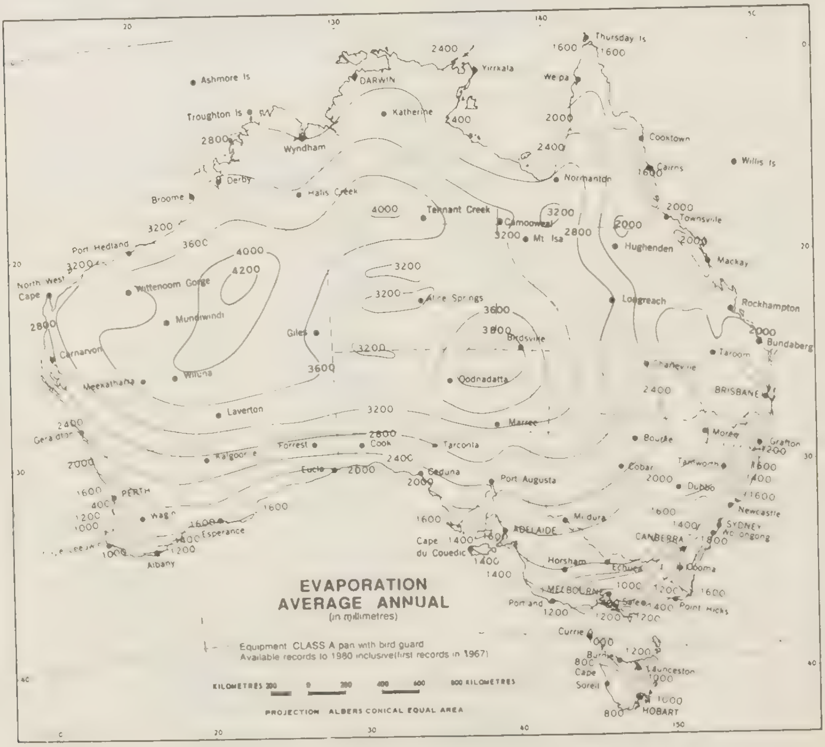
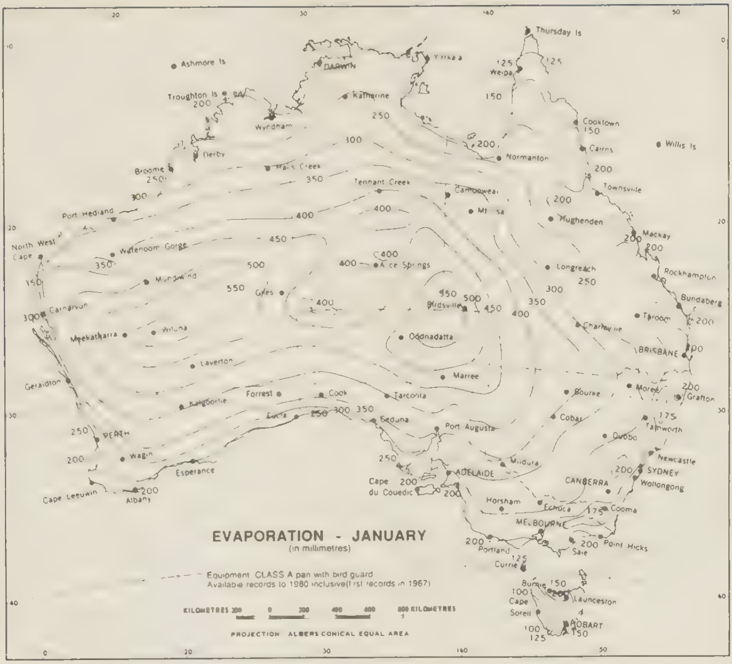
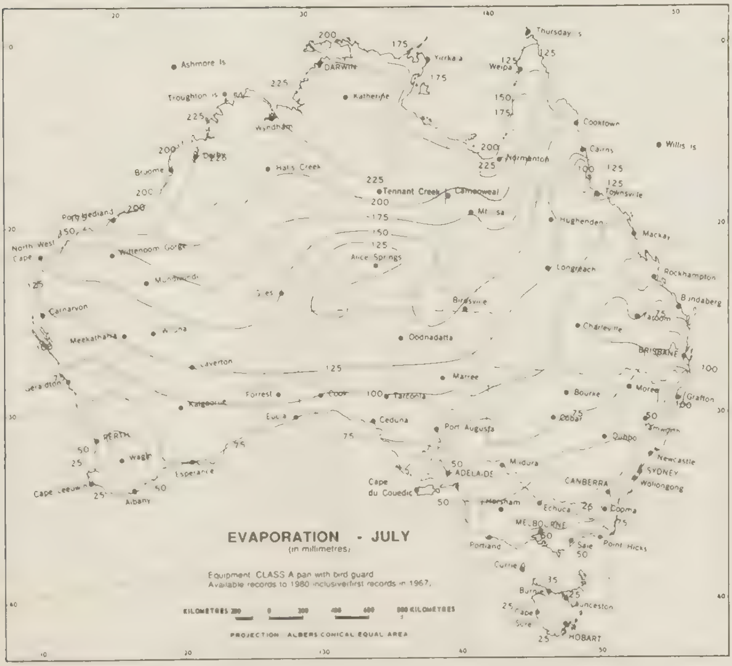

EVAPORATION
AVERAGE ANNUAL
(in millimetres)
Equipment CLASS A pan with bird guard
Available records to 1980 inclusive (first records in 1967)
KILOMETRES 200 0 200 400 600 800 KILOMETRES
PROJECTION ALBERS CONICAL EQUAL AREA
Ashmore Is
Troughton Is
DARWIN
Katherine
Yirrkala
Weipa
Thursday Is
Wyndham
Derby
Broome
Halls Creek
Cooktown
Cairns
Willis Is
Normanton
Tennant Creek
Camooweal
Mt Isa
Hughenden
Townsville
Mackay
Port Hedland
North West Cape
Wittenoom Gorge
Mundiwindi
Carnarvon
Meekatharra
Wiluna
Giles
Alice Springs
Birdsville
Longreach
Rockhampton
Bundaberg
Taroom
Charleville
Oodnadatta
BRISBANE
Laverton
Marree
Geraldton
Kalgoorlie
Forrest
Cook
Tarcoola
Bourke
Moree
Grafton
Eucla
Ceduna
Port Augusta
Cobar
Tamworth
Dubbo
PERTH
Wagin
Esperance
Albany
Newcastle
Mildura
ADELAIDE
SYDNEY
Wollongong
CANBERRA
Cape du Couedic
Horsham
Echuca
Cooma
MELBOURNE
Sale
Point Hicks
Portland
Currie
Burnie
Cape Sorell
Launceston
HOBART
2400
1600
2000
2800
3200
3600
4000
4200
1400
1200
1000
800

FIGURE 23


EVAPORATION - JANUARY
(in millimetres)
Equipment CLASS A pan with bird guard
Available records to 1980 inclusive(first records in 1967)
KILOMETRES 200 0 200 400 600 800 KILOMETRES
PROJECTION ALBERS CONICAL EQUAL AREA
Thursday Is
Ashmore Is
DARWIN
Yirrkala
Weipa
Troughton Is
Katherine
Wyndham
Cooktown
Derby
Halls Creek
Normanton
Cairns
Willis Is
Broome
Tennant Creek
Camooweal
Townsville
Port Hedland
Mt Isa
Hughenden
North West Cape
Wittenoom Gorge
Alice Springs
Mackay
Mundiwindi
Longreach
Rockhampton
Carnarvon
Giles
Birdsville
Bundaberg
Meekatharra
Wiluna
Oodnadatta
Charleville
Taroom
BRISBANE
Laverton
Marree
Geraldton
Forrest
Cook
Tarcoola
Bourke
Moree
Grafton
Kalgoorlie
Eucla
Ceduna
Cobar
Tamworth
Port Augusta
Dubbo
PERTH
Wagin
Mildura
Newcastle
Esperance
SYDNEY
Wollongong
Cape du Couedic
ADELAIDE
CANBERRA
Cape Leeuwin
Albany
Horsham
Echuca
Cooma
MELBOURNE
Point Hicks
Portland
Sale
Currie
Burnie
Launceston
Cape Sorell
HOBART
125
150
200
250
300
350
400
450
500
550
175
100


EVAPORATION - JULY
(in millimetres)
Equipment CLASS A pan with bird guard
Available records to 1980 inclusive(first records in 1967)
KILOMETRES 200 0 200 400 600 800 KILOMETRES
PROJECTION ALBERS CONICAL EQUAL AREA
Thursday Is
Ashmore Is
DARWIN
Yirrkala
Weipa
Troughton Is
Katherine
Wyndham
Cooktown
Derby
Halls Creek
Normanton
Cairns
Willis Is
Broome
Tennant Creek
Camooweal
Townsville
Port Hedland
Mt Isa
Hughenden
Mackay
North West Cape
Wittenoom Gorge
Alice Springs
Longreach
Rockhampton
Mundiwindi
Giles
Birdsville
Bundaberg
Carnarvon
Taroom
Meekatharra
Wiluna
Charleville
Oodnadatta
BRISBANE
Laverton
Marree
Geraldton
Forrest
Cook
Tarcoola
Bourke
Moree
Grafton
Kalgoorlie
Eucla
Ceduna
Cobar
Tamworth
Port Augusta
Dubbo
PERTH
Wagin
Mildura
Newcastle
Esperance
ADELAIDE
SYDNEY
Wollongong
Cape du Couedic
CANBERRA
Cape Leeuwin
Albany
Horsham
Echuca
Cooma
MELBOURNE
Point Hicks
Portland
Sale
Currie
Burnie
Launceston
Cape Sorell
HOBART
25
50
75
100
125
150
175
200
225

FIGURES 24 AND 25

The Class A pan instruments have a wire mesh bird guard, which reduces the measured evaporation. An estimate of the unguarded average Class A pan evaporation for any locality may be derived by applying a seven per cent increase to the value interpolated from the maps.

Average annual Class A pan evaporation ranges from more than 4,000 mm over central Western Australia to less than 1,000 mm in alpine areas of south-east Australia and in much of Tasmania.

In areas south of the tropics, average monthly evaporation follows seasonal changes in solar radiation, giving highest evaporation in December and January, and lowest in June and July. In the tropics, onset of summer brings increasing cloudiness and higher humidity, causing reduced evaporation in these months. Maximum evaporation in tropical areas occurs around November on average, but high evaporation is sustained when summer rains are delayed or are persistently below average.

Cloud

Seasonal changes in cloudiness vary with the distribution of rainfall. In the southern parts of the continent, particularly in the coastal and low lying areas, the winter months are generally more cloudy than the summer months. This is due to the formation of extensive areas of stratiform cloud and fog during the colder months, when the structure of the lower layers of the atmosphere favours the physical processes resulting in this type of cloud. Particularly strong seasonal variability of cloud cover exists in northern Australia where skies are clouded during the summer wet season and mainly cloudless during the winter dry season. Cloud coverage is greater near coasts and on the windward slopes of the eastern uplands of Australia and less over the dry interior.

The average monthly and annual number of cloudy days (days when the cloud coverage was greater than or equal to seven-eighths of the sky) and clear days (less than or equal to one-eighth) is included for the capital cities in the detailed capital city statistical tables.

Fog

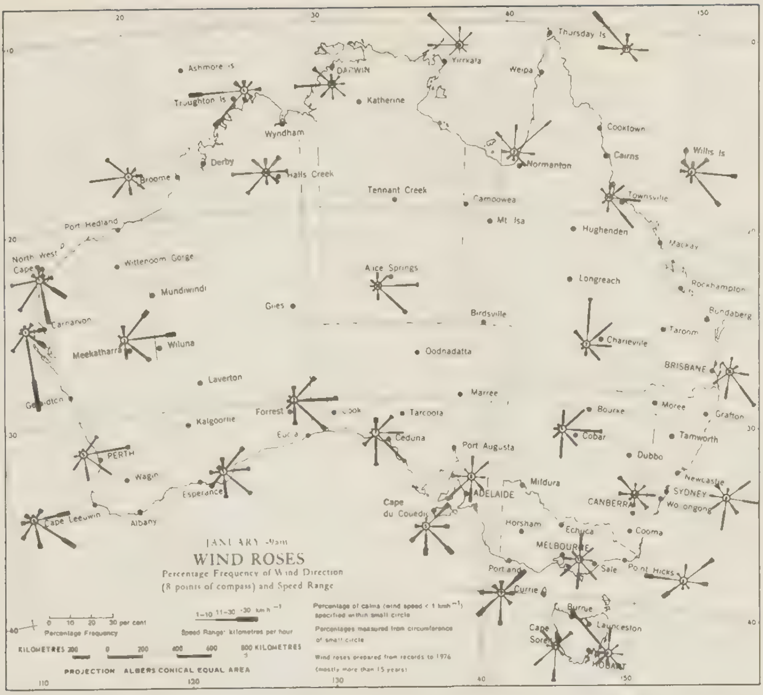
The formation of fog depends on the occurrence of favourable meteorological elements — mainly temperature, humidity, wind and cloud cover. The nature of the local terrain is important for the development of fog and there is a tendency for this phenomenon to persist in valleys and hollows. The incidence of fog may vary significantly over distances as short as one kilometre.

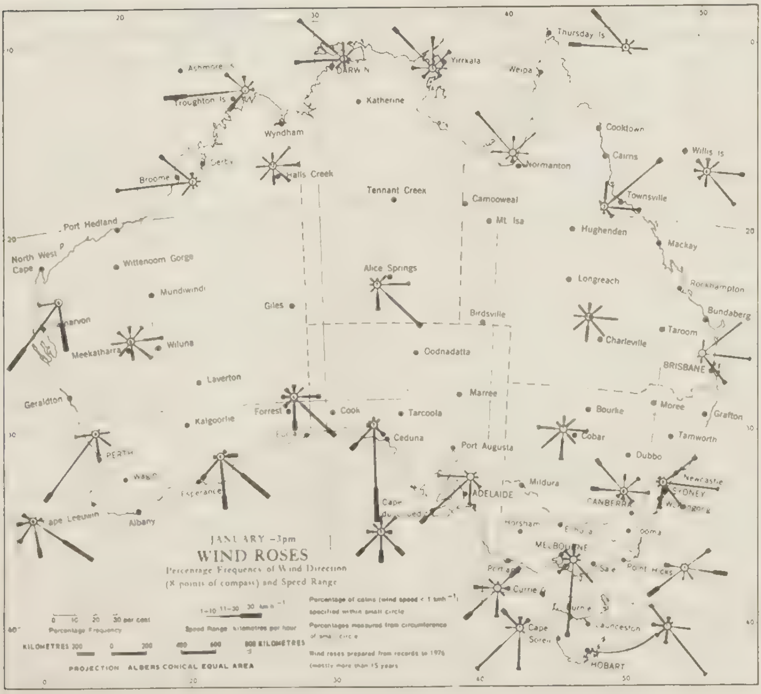
Fog in Australia tends to be greater in the south than the north, although parts of the east coastal areas are relatively fog prone even in the tropics. Incidence is much greater in the colder months, particularly in the eastern uplands. Fog may persist during the day but rarely until the afternoon over the interior. The highest fog incidence at a capital city is at Canberra which has an average of 47 days per year on which fog occurs, 29 of which are in the period of May to August. Brisbane averages 20 days of fog per year. Darwin averages only 2 days per year, in the months of July and August.

Winds

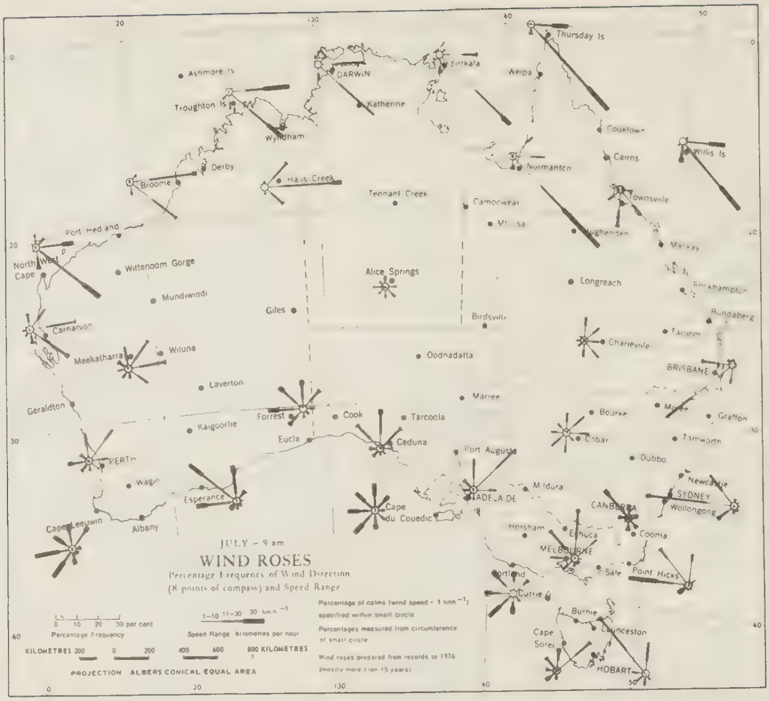
The mid-latitude anticyclones are the chief determinants of Australia's two main prevailing wind streams. In relation to the west–east axes of the anticyclones these streams are easterly to the north and westerly to the south. The cycles of development, motion and decay of low pressure systems to the north and south of the anticyclones result in diversity of wind flow patterns. Wind variations are greatest around the coasts where diurnal land and sea-breeze effects are important.

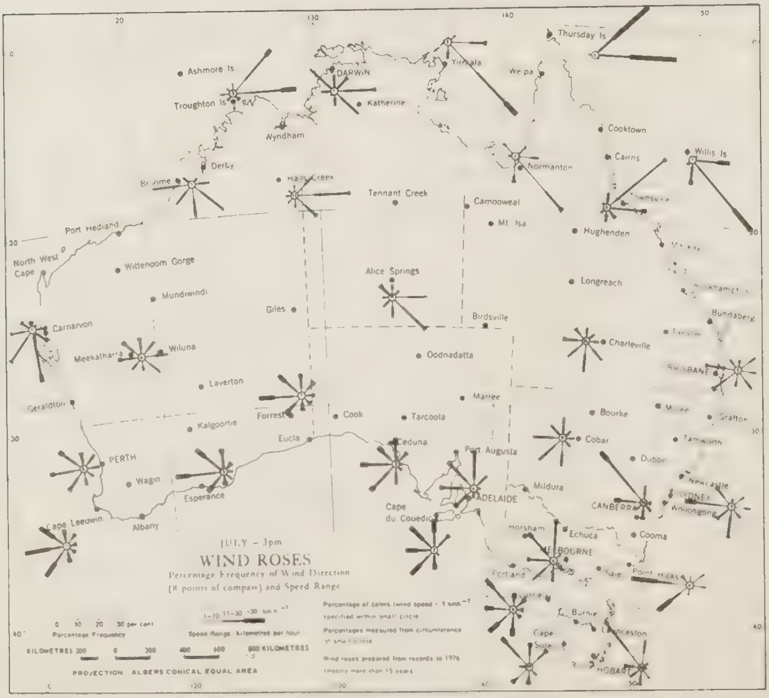
Wind roses for the months of January and July at 9 a.m. and 3 p.m. at selected stations are shown in Figures 26 to 29 inclusive, extracted from *Climatic Atlas of Australia, 1988.*


JANUARY -9am
WIND ROSES
Percentage Frequency of Wind Direction
(8 points of compass) and Speed Range
0 10 20 30 per cent
Percentage Frequency
1–10 11–30 >30 km h⁻¹
Speed Range: kilometres per hour
Percentage of calms (wind speed < 1 kmh⁻¹) specified within small circle
Percentages measured from circumference of small circle
Wind roses prepared from records to 1976 (mostly more than 15 years)
KILOMETRES 200 0 200 400 600 800 KILOMETRES
PROJECTION ALBERS CONICAL EQUAL AREA
Ashmore Is
Troughton Is
DARWIN
Katherine
Yirrkala
Thursday Is
Weipa
Wyndham
Derby
Broome
Halls Creek
Tennant Creek
Normanton
Cooktown
Cairns
Willis Is
Townsville
Camooweal
Mt Isa
Hughenden
Mackay
Port Hedland
North West Cape
Wittenoom Gorge
Mundiwindi
Carnarvon
Meekatharra
Wiluna
Giles
Alice Springs
Longreach
Rockhampton
Bundaberg
Birdsville
Taroom
Charleville
Oodnadatta
BRISBANE
Laverton
Geraldton
Kalgoorlie
Forrest
Cook
Tarcoola
Marree
Bourke
Moree
Grafton
Eucla
Ceduna
Port Augusta
Cobar
Tamworth
Dubbo
PERTH
Wagin
Esperance
Albany
Cape Leeuwin
Cape du Couedic
ADELAIDE
Mildura
Newcastle
SYDNEY
CANBERRA
Wollongong
Horsham
Echuca
Cooma
MELBOURNE
Portland
Sale
Point Hicks
Currie
Burnie
Launceston
Cape Sorell
HOBART


JANUARY -3pm
WIND ROSES
Percentage Frequency of Wind Direction
(8 points of compass) and Speed Range
0 10 20 30 per cent
Percentage Frequency
1–10 11–30 >30 km h⁻¹
Speed Range: kilometres per hour
Percentage of calms (wind speed < 1 kmh⁻¹) specified within small circle
Percentages measured from circumference of small circle
Wind roses prepared from records to 1976 (mostly more than 15 years)
KILOMETRES 200 0 200 400 600 800 KILOMETRES
PROJECTION ALBERS CONICAL EQUAL AREA
Ashmore Is
Troughton Is
DARWIN
Katherine
Yirrkala
Thursday Is
Weipa
Wyndham
Derby
Broome
Halls Creek
Tennant Creek
Normanton
Cooktown
Cairns
Willis Is
Townsville
Camooweal
Mt Isa
Hughenden
Mackay
Port Hedland
North West Cape
Wittenoom Gorge
Mundiwindi
Carnarvon
Meekatharra
Wiluna
Giles
Alice Springs
Longreach
Rockhampton
Bundaberg
Birdsville
Taroom
Charleville
Oodnadatta
BRISBANE
Laverton
Geraldton
Kalgoorlie
Forrest
Cook
Tarcoola
Marree
Bourke
Moree
Grafton
Eucla
Ceduna
Port Augusta
Cobar
Tamworth
Dubbo
PERTH
Wagin
Esperance
Albany
Cape Leeuwin
Cape du Couedic
ADELAIDE
Mildura
Newcastle
SYDNEY
CANBERRA
Wollongong
Horsham
Echuca
Cooma
MELBOURNE
Portland
Sale
Point Hicks
Currie
Burnie
Launceston
Cape Sorell
HOBART

FIGURES 26 AND 27


JULY – 9 am
WIND ROSES
Percentage Frequency of Wind Direction
(8 points of compass) and Speed Range
0 10 20 30 per cent
Percentage Frequency
1–10 11–30 30 km h⁻¹
Speed Range kilometres per hour
Percentage of calms (wind speed < 1 kmh⁻¹) specified within small circle
Percentages measured from circumference of small circle
Wind roses prepared from records to 1976 (mostly more than 15 years)
KILOMETRES 200 0 200 400 600 800 KILOMETRES
PROJECTION ALBERS CONICAL EQUAL AREA
Thursday Is
Ashmore Is
Troughton Is
DARWIN
Yirrkala
Weipa
Katherine
Wyndham
Cooktown
Derby
Halls Creek
Cairns
Willis Is
Normanton
Broome
Tennant Creek
Camooweal
Townsville
Mt Isa
Hughenden
Mackay
Port Hedland
North West Cape
Wittenoom Gorge
Alice Springs
Longreach
Rockhampton
Mundiwindi
Giles
Bundaberg
Birdsville
Carnarvon
Charleville
Taroom
Wiluna
Meekatharra
Oodnadatta
BRISBANE
Laverton
Marree
Moree
Geraldton
Forrest
Cook
Tarcoola
Bourke
Grafton
Kalgoorlie
Eucla
Ceduna
Cobar
Tamworth
PERTH
Port Augusta
Dubbo
Wagin
Esperance
Mildura
Newcastle
ADELAIDE
SYDNEY
Wollongong
Cape du Couedic
CANBERRA
Cape Leeuwin
Albany
Horsham
Echuca
Cooma
MELBOURNE
Sale
Point Hicks
Portland
Currie
Burnie
Launceston
Cape Sorell
HOBART


JULY – 3pm
WIND ROSES
Percentage Frequency of Wind Direction
(8 points of compass) and Speed Range
0 10 20 30 per cent
Percentage Frequency
1–10 11–30 30 km h⁻¹
Speed Range kilometres per hour
Percentage of calms (wind speed < 1 kmh⁻¹) specified within small circle
Percentages measured from circumference of small circle
Wind roses prepared from records to 1976 (mostly more than 15 years)
KILOMETRES 200 0 200 400 600 800 KILOMETRES
PROJECTION ALBERS CONICAL EQUAL AREA
Thursday Is
Ashmore Is
Troughton Is
DARWIN
Yirrkala
Weipa
Katherine
Wyndham
Cooktown
Derby
Cairns
Willis Is
Normanton
Broome
Halls Creek
Tennant Creek
Camooweal
Townsville
Mt Isa
Hughenden
Port Hedland
North West Cape
Wittenoom Gorge
Alice Springs
Longreach
Mundiwindi
Giles
Birdsville
Bundaberg
Carnarvon
Charleville
Wiluna
Meekatharra
Oodnadatta
BRISBANE
Laverton
Marree
Geraldton
Forrest
Cook
Tarcoola
Bourke
Grafton
Kalgoorlie
Eucla
Ceduna
Cobar
Tamworth
PERTH
Port Augusta
Dubbo
Wagin
Esperance
Mildura
ADELAIDE
Newcastle
SYDNEY
Wollongong
CANBERRA
Cape Leeuwin
Albany
Cape du Couedic
Horsham
Echuca
Cooma
MELBOURNE
Sale
Point Hicks
Portland
Currie
Burnie
Launceston
Cape Sorell
HOBART

FIGURES 28 AND 29

The wind roses show the percentage frequency of direction (eight points of compass) and speed ranges of winds.

Orography affects the prevailing wind pattern in various ways such as the channelling of winds through valleys, deflection by mountains and cold air drainage from highland areas. An example of this channelling is the high frequency of north-west winds at Hobart caused by the north-west – south-east orientation of the Derwent River Valley.

Average wind speeds and prevailing directions at Australian capitals are included in the detailed climatic tables. Perth is the windiest capital with an average wind speed of 15.6 kilometres per hour; Canberra is the least windy with an average speed of 5.4 kilometres per hour.

The highest wind speeds and wind gusts recorded in Australia have been associated with tropical cyclones. The highest recorded gust was 259 kilometres per hour at Mardie (near Onslow), Western Australia on 19 February 1975, and gusts reaching 200 kilometres per hour have been recorded on several occasions in northern Australia with cyclone visitations. The highest gusts recorded at Australian capitals were 217 kilometres per hour at Darwin and 156 kilometres per hour at Perth.

Droughts

Drought, in general terms, refers to an acute deficit of water supply to meet a specified demand. The best single measure of water availability in Australia is rainfall, although parameters such as evaporation and soil moisture are significant, or even dominant in some situations. Demands for water are very diverse, hence the actual declaration of drought conditions for an area will generally also depend on the effects of a naturally occurring water deficit on the principal local industries.

Since the 1860s there have been nine major Australian droughts. Some of these major droughts could be described as periods consisting of a series of dry spells of various lengths, overlapping in time and space, and totalling up to about a decade. The drought periods of 1895–1903, 1958–68 and 1982–83 were the most devastating in terms of their extent and effects on primary production. The remaining major droughts occurred in 1864–66 (and 1868), 1880–86, 1888, 1911–16, 1918–20 and 1939–45.

In this same period, several droughts of lesser severity caused significant losses over large areas of some States. They occurred in 1922–23 and 1926–29, 1933–38, 1946–49, 1951–52, 1970–73 and 1976.

South-eastern Australia (New South Wales, southern Queensland, Victoria, Tasmania and the settled parts of South Australia) contains about 75 per cent of the nation's population, and droughts affecting this region have a markedly adverse impact on the economy. There have been eight severe droughts in south-eastern Australia since 1888, and these were encompassed within the major Australian droughts specified previously, except for the severe drought in 1972–73. Drought definitions and the area of coverage and length of these droughts, together with related information may be obtained from *Year Book Australia 1988.*

Floods

Widespread flood rainfall may occur anywhere in Australia but it has a higher incidence in the north and in the eastern coastal areas. It is most economically damaging along the shorter streams flowing from the eastern uplands eastward to the seaboard of Queensland and New South Wales. These flood rains are notably destructive in the more densely populated coastal river valleys of New South Wales — the Tweed, Richmond, Clarence, Macleay, Hunter and Nepean–Hawkesbury — all of which experience relatively frequent flooding. Although chiefly caused by summer rains, they may occur in any season.

The great Fitzroy and Burdekin river basins of Queensland receive flood rains during the summer wet seasons. Much of the run-off due to heavy rain in north Queensland west of the eastern uplands flows southward through the normally dry channels of the network of rivers draining the interior lowlands into Lake Eyre. This widespread rain may cause floods over an extensive area, but it soon seeps away or evaporates, occasionally reaching the lake in quantity. The Condamine and other northern tributaries of the Darling also carry large volumes of water from flood rains south through western New South Wales to the Murray and flooding occurs along their courses at times.

Flood rains occur at irregular intervals in the Murray–Murrumbidgee system of New South Wales and Victoria, the coastal streams of southern Victoria and the north coast streams of Tasmania.

Climatic discomfort

In Australia climatic discomfort is significant in most areas. During the summer half of the year (November–April), prolonged high temperatures and humidity around the northern coasts and high temperatures over the inland cause physical stress. In winter, low temperatures and strong cold winds over the interior and southern areas can be severe for relatively short periods. However, cold stress does not cause prolonged physical hardship in Australia at altitudes lower than 1,000 metres, that is, over more than 99 per cent of the continent.

The climatic variables determining physical discomfort are primarily air temperature, vapour pressure and wind. The complete assessment of physical discomfort also requires analyses of such parameters as thermal conductivity of clothing, vapour pressure at the skin and the metabolic heat rate arising from activity of the human body. The cooling system of the human body depends on evaporation of moisture to keep body temperature from rising to lethal levels as air temperature rises. Defining criteria of discomfort is difficult because personal reactions to the weather differ greatly according to a number of variables including health, age, clothing, occupation and acclimatisation (Ashton, 1964). However, climatic strain has been measured experimentally, and discomfort indices based on the average response of subjects under specified conditions have been derived. One of the most commonly used indices is the relative strain index. The index, derived by Lee and Henschel (1963), has been applied in Australia to measure heat discomfort. The results obtained with Australian data are useful for purposes of comparison but interpretation of the actual results is tentative until empirical environmental studies are carried out in this region. In addition to temperature, humidity and air movement, the relative strain index has facilities for the incorporation of metabolic heat rate, net radiation and insulation of clothing. It has the advantage of being applicable to manual workers under shelter and expending energy at various metabolic heat rates.

The discomfort map, Figure 30, shows the average number of days per year when the relative strain index exceeds 0.3 discomfort level at 3 p.m. assuming standard conditions as defined (*see* following table). Maximum discomfort generally occurs around 3 p.m. on days of high temperature.

A notable feature is the lower frequency of days of discomfort in Queensland coastal areas in comparison with the northern coastal areas of Western Australia. This is due to the onshore winds prevailing on the Queensland coast and the cooling effect of the adjacent eastern uplands. Lower frequencies on the Atherton Plateau in the tropics near Cairns show the advantage of altitude. Relatively low heat discomfort frequencies are evident in upland and coastal areas of south-east Australia. Tasmania is entirely in the zone of least discomfort, experiencing on the average less than one day of heat discomfort per year. In Western Australia most of the Kimberley region in the north lies in the highest discomfort zone with the frequencies decreasing southwards to a strip of lowest discomfort towards the south-west coast. A steep gradient of discomfort frequency on the west coast shows the moderating effect of sea-breezes.

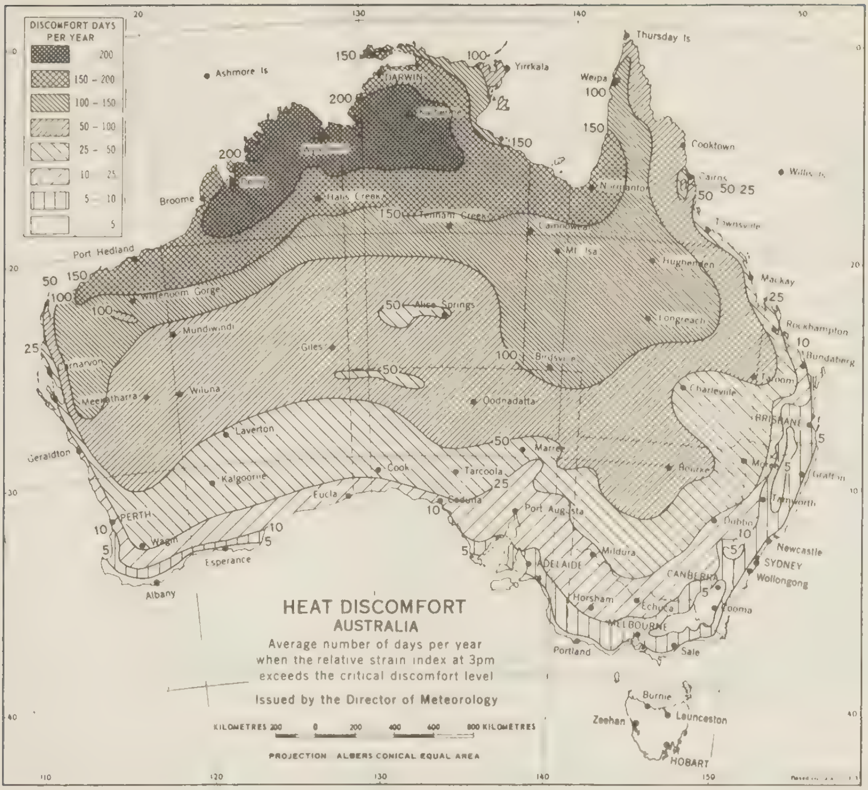

DISCOMFORT DAYS PER YEAR
200
150 – 200
100 – 150
50 – 100
25 – 50
10 – 25
5 – 10
5
HEAT DISCOMFORT
AUSTRALIA
Average number of days per year when the relative strain index at 3pm exceeds the critical discomfort level
Issued by the Director of Meteorology
KILOMETRES 200 0 200 400 600 800 KILOMETRES
PROJECTION ALBERS CONICAL EQUAL AREA
Thursday Is
Ashmore Is
DARWIN
Yirrkala
Weipa
Cooktown
Cairns
Willis Is
Broome
Halls Creek
Tennant Creek
Normanton
Camooweal
Townsville
Mt Isa
Port Hedland
Wittenoom Gorge
Hughenden
Mackay
Alice Springs
Longreach
Rockhampton
Mundiwindi
Giles
Bundaberg
Carnarvon
Birdsville
Toowoomba
Meekatharra
Wiluna
Oodnadatta
Charleville
BRISBANE
Laverton
Geraldton
Marree
Moree
Grafton
Cook
Tarcoola
Bourke
Kalgoorlie
Eucla
Ceduna
Tamworth
Port Augusta
Dubbo
PERTH
Wagin
Esperance
Mildura
Newcastle
ADELAIDE
SYDNEY
Wollongong
CANBERRA
Albany
Horsham
Echuca
Cooma
MELBOURNE
Portland
Sale
Burnie
Launceston
Zeehan
HOBART
200
150
100
50
25
10
5
110
120
130
140
150
10
20
30
40

FIGURE 30

The average annual frequency of days when the relative strain index at 3 p.m. exceeds specified discomfort levels is shown in the table below. The Sydney frequencies were derived from observations at the regional office of the Bureau of Meteorology, which is representative of eastern coastal suburbs; frequencies are higher in western suburbs. The Melbourne frequencies were derived from observations at the Bureau's regional office, which may be taken as fairly representative of inner northern and eastern suburbs; frequencies are lower in bayside suburbs. Similarly, in other capital city areas significant variations occur with distance from the coast.

HEAT DISCOMFORT(a)

		Greater than—	
Station	*Period of record*	*0.3 RSI*	*0.4 RSI*
Adelaide	1956–86	6	2
Alice Springs	1942–87	52	4
Brisbane	1951–85	7	2
Broome	1941–67	163	66
Canberra	1940–87	3	<1
Carnarvon	1950–87	25	6
Ceduna	1943–87	15	3
Charleville	1943–87	45	6
Cloncurry	1942–74	132	37
Cobar	1964–85	23	3
Darwin	1943–87	173	32
Hobart	1944–87	<1	<1
Kalgoorlie	1943–87	28	4
Marble Bar	1957–74	179	86
Melbourne	1955–87	6	2
Mildura	1947–87	20	4
Perth	1942–87	13	2
Rockhampton	1940–87	42	8
Sydney	1955–86	3	<1
Townsville	1941–87	48	5
Wagga	1945–85	12	2
Woomera	1950–87	28	5

(a) Average number of days per year when relative strain index (RSI) at 3 p.m. exceeds 0.3 (discomfort) and 0.4 (high discomfort) under standard conditions (indoors, manual activities, light clothing, air movement 60 metres per minute).

Source: Bureau of Meteorology.

At inland places, relatively low night temperatures have recuperative effects after hot days.

Acclimatised people would suffer discomfort less frequently than shown by the relative strain index figures. For example, Australians living in the north evidently experience less discomfort at high air temperatures than those in the south, if humidities are comparable.

Both direction and speed of prevailing winds are significant for the ventilation of buildings. In the tropics, for instance, windward slopes allow optimal air movement enabling more comfortable ventilation to be obtained. Regular sea-breezes such as those experienced at Perth reduce discomfort although on some days their full benefit may not be experienced until after 3 p.m.

Further climatic data

The means and some indication of the variation for a number of meteorological elements for various localities are contained in *Climatic Averages Australia, 1988*. Useful rainfall statistics can be found in *Selected Rainfall Statistics, 1989*. Climatic data for Australia are available on microfiche, computer diskettes and compact discs from the Bureau of Meteorology.

Year Book Australia 1991 and earlier editions contain climatic details for capital cities.

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The World Book Encyclopedia

Chapter Two

Government

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THE CONSTITUTION 59

There are three levels of government in Australia.

The six Australian colonies federated in 1901 to form the Commonwealth of Australia. Most of the Commonwealth Parliament's legislative powers are enumerated in section 51 of the Constitution. Areas of power not specified remain the responsibility of the States and Territories. A system of local government, established under State legislation, creates a third tier of government in Australia. In 1991, Australia had 842 elected members of Parliament, of whom 224 were Commonwealth and 618 State and Territory members.

Both the State and the Commonwealth systems of government derive from the British Westminster system, although many features of the Commonwealth Constitution (including the federal structure) are based on the United States Constitution. Generally, however, the salient features of the Westminster system have been retained. Ministers are members of Parliament, and are required to be accountable and answerable to it. In the twentieth century, Australia has been characterised by a strong party system and adversarial style of politics between the government and opposition.

This chapter outlines the basic features of the constitutional structure of the Commonwealth Parliament and Government and its electoral system, and provides details of the Ministry, and other political leaders. It also contains, at its end, the Australian Constitution.

A chapter outlining Australia's pre-history to Federation was contained in the 1991 and earlier Year Books.

PARLIAMENTARY GOVERNMENT

Scheme of parliamentary government

Under the Australian Constitution the legislative power of the Commonwealth of Australia is vested in the Parliament of the Commonwealth, which consists of the Queen, the Senate and the House of Representatives. The Queen is represented throughout the Commonwealth by the Governor-General. In each Australian State there is a State Governor, who is the representative of the Queen for the State. The Governor has such powers within the State as are conferred upon him by the Letters Patent constituting his office, and he exercises these powers in accordance with instructions issued to him by the Queen, detailing the manner in which his duties are to be fulfilled.

No Act of the Parliament of the United Kingdom passed after the commencement of the *Australia Act 1986* extends, or is deemed to extend, to the Commonwealth of Australia or to an Australian State or Territory as part of the law of the Commonwealth, of the State or of the Territory. Further, the restrictions that formerly existed on the legislative powers of the Parliaments of the States were removed by the Act.

In the Commonwealth Parliament the Upper House is known as the Senate, and in the bicameral State Parliaments as the Legislative Council. The Legislature in all States was bicameral until 1922 when the Queensland Parliament became unicameral upon the abolition of the Upper House. In the Commonwealth Parliament the Lower House is known as the House of Representatives; in the State Parliaments of New South Wales, Victoria and Western Australia as the Legislative Assembly; and in the State Parliaments of South Australia and Tasmania as the House of Assembly. The single House of Parliament in Queensland, the Northern Territory and the Australian Capital Territory is known as the Legislative Assembly. The extent of the legislative powers of each of the seven Parliaments is defined by the Australian and State Constitutions respectively. In those States that have a bicameral legislature, the Legislative Assembly or House of Assembly, as the case may be, is the larger House.

The members of the Parliaments of each State are elected by the people, the franchise extending to Australian citizens who are at least 18 years of age and possess certain residential qualifications. For the Commonwealth Parliament the qualifications for the franchise are identical for both Houses, extending to Australian citizens and British subjects who are on the Commonwealth Electoral Roll and who are not less than 18 years of age.

The Sovereign

On 7 February 1952 the then Governor-General of the Commonwealth of Australia, acting with advice of members of the Federal Executive Council, proclaimed

Princess Elizabeth as Queen Elizabeth the Second, Queen of this Realm and of all Her other Realms and Territories, Head of the Commonwealth, Defender of the Faith, Supreme Liege Lady in and over the Commonwealth of Australia. By the *Royal Style and Titles Act 1973*, which Her Majesty assented to in Canberra on 19 October 1973, the Commonwealth Parliament assented to the adoption by Her Majesty, for use in relation to Australia and its Territories, of the Style and Titles set out in the Schedule to that Act. On the same day, also in Canberra, Her Majesty issued a Proclamation, under the Great Seal of Australia, appointing and declaring that Her Majesty's Style and Titles should henceforth be, in relation to Australia and its Territories, 'Elizabeth the Second, by the Grace of God Queen of Australia and Her other Realms and Territories, Head of the Commonwealth'.

The Governor-General

Powers and functions

Under the Australian Constitution, the Governor-General exercises the executive power of the Commonwealth of Australia, and certain other powers and functions conferred by the Constitution that include, among others, the powers to appoint times for holding the sessions of the Parliament, to prorogue Parliament, and to dissolve the House of Representatives; to cause writs to be issued for general elections of members of the House of Representatives; to assent in the Queen's name to a proposed law passed by both Houses of the Parliament; to choose and summon Executive Councillors, who hold office during the Governor-General's pleasure; and to appoint Ministers of State for the Commonwealth of Australia. In addition, the Governor-General, as the Queen's representative, is Commander-in-Chief of the Defence Forces.

Many Acts of the Commonwealth Parliament provide that the Governor-General may make regulations to give effect to the Acts. The Governor-General may also be authorised by statute to issue proclamations, e.g., to declare an Act in force. The Governor-General has been given power by statute to legislate for certain of the Australian Territories. Under the provisions of the Constitution, as well as by the conventions of responsible government in British Commonwealth countries, the Governor-General's executive functions are exercised on the advice of Ministers of State.

The present Governor-General is His Excellency the Honourable William George Hayden, AC.

Holders of office

Those persons who have held the office of Governor-General from the inception of the Commonwealth of Australia are pictured in *Year Book Australia 1988*.

Administrators

In addition to the holders of the office of Governor-General, certain persons have, from time to time, been appointed by the Queen to administer the Government of the Commonwealth of Australia. These persons are appointed in the event of the death, incapacity, removal from office or absence from Australia of the Governor-General.

Governors of the States

Powers and functions

The Queen is represented in each of the Australian States by a Governor, the office having been constituted by Letters Patent issued under the Great Seal of the United Kingdom on various dates. The Governors of the States exercise prerogative powers conferred on them by these Letters Patent, their commissions of appointment and the Governor's Instructions given to them under the Royal Sign Manual and Signet or other instrument, as specified in the Letters Patent. In addition, they have been invested with various statutory functions by State Constitutions and the Commonwealth *Australia Act 1986*, as well as under the Acts of the Parliaments of the States.

A Governor of a State assents in the Queen's name to Bills passed by the Parliament of the State. Since the enactment of the *Australia Act 1986*, an Act of Parliament of a State that has been assented to by the Governor of the State is no longer subject to disallowance by the Queen or suspension pending signification of the Queen's pleasure. The Governor administers the prerogative of mercy by the reprieve or pardon of criminal offenders within his jurisdiction, and may remit fines and penalties due to the Crown in right of the State. In the performance of his functions generally, particularly those conferred by statute, the Governor of a State acts on the advice of Ministers of State for the State.

STATE GOVERNORS, HOLDERS OF OFFICE, NOVEMBER 1991

New South Wales	His Excellency REAR ADMIRAL PETER ROSS SINCLAIR, AO
Victoria	His Excellency JUSTICE RICHARD McGARVIE
Queensland	His Excellency the Honourable SIR WALTER BENJAMIN CAMPBELL, AC KT QC
Western Australia	His Excellency the Honourable SIR FRANCIS THEODORE PAGE BURT, AC, KCMG, QC
South Australia	Her Excellency the Honourable DAME ROMA FLINDERS MITCHELL, AC, DBE
Tasmania	His Excellency GENERAL SIR PHILLIP BENNETT, AC, KBE, DSO
Northern Territory	The Honourable JAMES HENRY MUIRHEAD, AC QC

Source: Department of the Parliamentary Library.

Commonwealth Government Ministries

The following list shows the name of each Commonwealth Government Ministry to hold office since 1 January 1901 and the dates of its term of office.

COMMONWEALTH GOVERNMENT MINISTRIES, 1901 TO 1991

(i)	BARTON MINISTRY	1 January 1901 to 24 September 1903
(ii)	DEAKIN MINISTRY	24 September 1903 to 27 April 1904
(iii)	WATSON MINISTRY	27 April 1904 to 17 August 1904
(iv)	REID–McLEAN MINISTRY	18 August 1904 to 5 July 1905
(v)	DEAKIN MINISTRY	5 July 1905 to 13 November 1908
(vi)	FISHER MINISTRY	13 November 1908 to 2 June 1909
(vii)	DEAKIN MINISTRY	2 June 1909 to 29 April 1910
(viii)	FISHER MINISTRY	29 April 1910 to 24 June 1913
(ix)	COOK MINISTRY	24 June 1913 to 17 September 1914
(x)	FISHER MINISTRY	17 September 1914 to 27 October 1915
(xi)	HUGHES MINISTRY	27 October 1915 to 14 November 1916
(xii)	HUGHES MINISTRY	14 November 1916 to 17 February 1917
(xiii)	HUGHES MINISTRY	17 February 1917 to 8 January 1918
(xiv)	HUGHES MINISTRY	10 January 1918 to 9 February 1923
(xv)	BRUCE–PAGE MINISTRY	9 February 1923 to 22 October 1929
(xvi)	SCULLIN MINISTRY	22 October 1929 to 6 January 1932
(xvii)	LYONS MINISTRY	6 January 1932 to 7 November 1938
(xviii)	LYONS MINISTRY	7 November 1938 to 7 April 1939
(xix)	PAGE MINISTRY	7 April 1939 to 26 April 1939
(xx)	MENZIES MINISTRY	26 April 1939 to 14 March 1940
(xxi)	MENZIES MINISTRY	14 March 1940 to 28 October 1940
(xxii)	MENZIES MINISTRY	28 October 1940 to 29 August 1941
(xxiii)	FADDEN MINISTRY	29 August 1941 to 7 October 1941
(xxiv)	CURTIN MINISTRY	7 October 1941 to 21 September 1943
(xxv)	CURTIN MINISTRY	21 September 1943 to 6 July 1945
(xxvi)	FORDE MINISTRY	6 July 1945 to 13 July 1945
(xxvii)	CHIFLEY MINISTRY	13 July 1945 to 1 November 1946
(xxviii)	CHIFLEY MINISTRY	1 November 1946 to 19 December 1949
(xxix)	MENZIES MINISTRY	19 December 1949 to 11 May 1951
(xxx)	MENZIES MINISTRY	11 May 1951 to 11 January 1956
(xxxi)	MENZIES MINISTRY	11 January 1956 to 10 December 1958
(xxxii)	MENZIES MINISTRY	10 December 1958 to 18 December 1963
(xxxiii)	MENZIES MINISTRY	18 December 1963 to 26 January 1966
(xxxiv)	HOLT MINISTRY	26 January 1966 to 14 December 1966
(xxxv)	HOLT MINISTRY	14 December 1966 to 19 December 1967
(xxxvi)	McEWEN MINISTRY	19 December 1967 to 10 January 1968
(xxxvii)	GORTON MINISTRY	10 January 1968 to 28 February 1968
(xxxviii)	GORTON MINISTRY	28 February 1968 to 12 November 1969

.. *continued*

COMMONWEALTH GOVERNMENT MINISTRIES, 1901 TO 1991 — *continued*

(xxxix)	GORTON MINISTRY	12 November 1969 to 10 March 1971
(xl)	McMAHON MINISTRY	10 March 1971 to 5 December 1972
(xli)	WHITLAM MINISTRY	5 December 1972 to 19 December 1972
(xlii)	WHITLAM MINISTRY	19 December 1972 to 11 November 1975
(xliii)	FRASER MINISTRY	11 November 1975 to 22 December 1975
(xliv)	FRASER MINISTRY	22 December 1975 to 20 December 1977
(xlv)	FRASER MINISTRY	20 December 1977 to 3 November 1980
(xlvi)	FRASER MINISTRY	3 November 1980 to 7 May 1982
(xlvii)	FRASER MINISTRY	7 May 1982 to 11 March 1983
(xlviii)	HAWKE MINISTRY	11 March 1983 to 13 December 1984
(xlix)	HAWKE MINISTRY	13 December 1984 to 24 July 1987
(l)	HAWKE MINISTRY	24 July 1987 to 4 April 1990
(li)	HAWKE MINISTRY	4 April 1990 to 20 December 1991
(lii)	KEATING MINISTRY	20 December 1991

Source: Department of the Parliamentary Library.

In *Year Book Australia 1924*, the names are given of each Ministry up to the Bruce–Page Ministry together with the names of the successive holders of portfolios therein. *Year Book Australia 1953* contains a list which covers the period between 9 February 1923, the date on which the Bruce–Page Ministry assumed power, and 31 July 1951, showing the names of all persons who held office in each Ministry during that period. The names of members of subsequent Ministries are listed in issues of the *Year Book Australia*, 1953 to 1975-76 inclusive, and in successive issues from 1980.

This issue shows particulars of the First Keating Ministry at June 1992.

LEADERS OF THE GOVERNMENT, JUNE 1992

Commonwealth	THE HON. P. J. KEATING, MP, (NSW) (ALP)
New South Wales	THE HON. N. F. GREINER, MLA (LP)
Victoria	THE HON. J. KIRNER, MLA (ALP)
Queensland	THE HON. W. K. GOSS, MLA (ALP)
Western Australia	THE HON. C. M. LAWRENCE, MLA (ALP)
South Australia	THE HON. J. C. BANNON, MP (ALP)
Tasmania	THE HON. R. J. GROOM, MHA (LP)
Northern Territory	THE HON. M. PERRON, MLA (CLP)
Australian Capital Territory	THE HON. R. FOLLETT, MLA (ALP)

Source: Department of the Parliamentary Library.

COMMONWEALTH GOVERNMENT

FIRST KEATING MINISTRY, AT JUNE 1992

* **Prime Minister**	**THE HON. P. J. KEATING, MP**
Parliamentary Secretary to the Prime Minister	THE HON. L. BRERETON, MP
* **Minister for Health, Housing and Community Services** Minister Assisting the Prime Minister for Social Justice Minister Assisting the Prime Minister for Commonwealth–State Relations	**THE HON. BRIAN HOWE, MP** (Deputy Prime Minister)
Minister for Aged, Family and Health Services	THE HON. PETER STAPLES, MP
Parliamentary Secretary to the Minister for Health, Housing and Community Services	THE HON. GARY JOHNS, MP

For footnotes *see* end of table.

FIRST KEATING MINISTRY, AT JUNE 1992 — *continued*

*	**Minister for Veterans' Affairs** Minister Assisting the Prime Minister for Northern Australia	**THE HON. BEN HUMPHREYS, MP**
*	**Minister for Industry, Technology and Commerce**	**SENATOR THE HON. JOHN BUTTON** (Leader of the Government in the Senate)
	Minister for Science and Technology Minister Assisting the Prime Minister	THE HON. ROSS FREE, MP
	Minister for Small Business and Construction and Customs	THE HON. DAVID BEDDALL, MP
*	**Minister for Foreign Affairs and Trade**	**SENATOR THE HON. GARETH EVANS, QC** (Deputy Leader of the Government in the Senate)
	Minister for Trade and Overseas Development	THE HON. JOHN KERIN, MP
	Parliamentary Secretary to the Minister for Foreign Affairs and Trade	THE HON. STEPHEN MARTIN, MP
*	**Treasurer**	**THE HON. J. S. DAWKINS, MP**
	Parliamentary Secretary to the Treasurer	SENATOR THE HON. BOB MCMULLAN (Manager of Government Business in the Senate)
*	**Minister for Finance**	**THE HON. RALPH WILLIS, MP** (Vice-President of the Executive Council)
*	**Attorney-General**	**THE HON. MICHAEL DUFFY, MP**
	Minister for Justice Minister Assisting the Minister for Immigration, Local Government and Ethnic Affairs	SENATOR THE HON. MICHAEL TATE
	Parliamentary Secretary to the Attorney-General	THE HON. PETER DUNCAN, MP
*	**Minister for Employment, Education and Training**	**THE HON. KIM C. BEAZLEY, MP** (Leader of the House)
	Minister for Higher Education and Employment Services Minister Assisting the Treasurer	THE HON. PETER BALDWIN, MP
	Minister for Aboriginal and Torres Strait Islander Affairs Minister Assisting the Prime Minister for Aboriginal Reconciliation	THE HON. ROBERT TICKNER, MP
	Parliamentary Secretary to the Minister for Employment, Education and Training	THE HON. WARREN SNOWDON, MP
*	**Minister for Social Security**	**THE HON. NEAL BLEWETT, MP**
	Minister for Family Support	THE HON. DAVID SIMMONS, MP
	Parliamentary Secretary to the Minister for Social Security	THE HON. CON SCIACCA, MP
*	**Minister for Transport and Communications**	**SENATOR THE HON. ROBERT COLLINS**
	Minister for Land Transport	THE HON. BOB BROWN, MP
*	**Minister for Defence**	**SENATOR THE HON. ROBERT RAY**
	Minister for Defence Science and Personnel	THE HON. GORDON BILNEY, MP
	Parliamentary Secretary to the Minister for Defence	THE HON. ROGER PRICE, MP

For footnotes *see* end of table.

FIRST KEATING MINISTRY, AT JUNE 1992 — *continued*

*	**Minister for Immigration, Local Government and Ethnic Affairs**	**THE HON. GERRY HAND, MP**
	Minister Assisting the Prime Minister for Multicultural Affairs	
	Minister for Family Support and Minister for Local Government	THE HON. DAVID SIMMONS, MP
	Minister for Consumer Affairs	THE HON. JEANETTE McHUGH, MP
*	**Minister for the Arts, Sport, the Environment and Territories**	**THE HON. ROS KELLY, MP**
	Minister for the Arts and Territories	THE HON. WENDY FATIN, MP
	Minister Assisting the Prime Minister for the Status of Women	
*	**Minister for Industrial Relations**	**SENATOR THE HON. PETER COOK**
	Minister for Shipping and Aviation Support	
	Minister Assisting the Prime Minister for Public Service Matters	
*	**Minister for Administrative Services**	**SENATOR THE HON. NICK BOLKUS**
*	**Minister for Primary Industries and Energy**	**THE HON. SIMON CREAN, MP**
*	**Minister for Tourism and Minister for Resources**	**THE HON. ALAN GRIFFITHS, MP**

NOTE: * Portfolio Ministers, all of whom are in the Cabinet, are shown in bold type. A Department with a title reflecting the portfolio Minister's title is administered by the Ministers within each grouping. Mr Simmons administers both the Department of Social Security, with Dr Blewett as portfolio minister, and the Department of Immigration, Local Government and Ethnic Affairs, with Mr Hand as portfolio Minister.

Source: Department of the Parliamentary Library.

LEADERS OF THE OPPOSITION, JUNE 1992

Commonwealth	DR J. R. HEWSON, MP (LP)
New South Wales	R. J. CARR, MLA (ALP)
Victoria	THE HON. J. G. KENNETT, MLA (LP)
Queensland	R. E. BORBRIDGE, MLA (NP)
Western Australia	R. COURT, MLA (LP)
South Australia	THE HON. D. C. BROWN, MHA (LP)
Tasmania	THE HON. M. W. FIELD, MHA (ALP)
Northern Territory	B. R. EDE, MLA (ALP)
Australian Capital Territory(a)	THE HON. T. T. KAINE, MLA (LP).

(a) Election for the ACT Legislative Assembly was held on 15 February 1992. After an election, the Leader of the Opposition of the Legislative Assembly shall be the leader of the largest non-government party.

Source: Department of the Parliamentary Library.

Numbers and salaries of Commonwealth Government Ministers

Under sections 65 and 66, respectively, of the Australian Constitution the number of Ministers of State was not to exceed seven, and the annual sum payable for their salaries was not to exceed £12,000, each provision to operate, however, 'until the Parliament otherwise provides'.

Subsequently, the number and salaries have increased from time to time, and as at 15 August 1991 the number of Ministers was 30 and ministerial salaries ranged from $106,848 for the Prime Minister, $69,503 for the Deputy Prime Minister, $56,503 for the Treasurer and for the Leader of the Government in the Senate, $50,144 for the Leader of the House, and $46,722 for a

Minister other than the above. Where more than one office is held only one salary is payable, that being the higher salary.

All amounts shown in the foregoing paragraphs are in addition to amounts payable as Parliamentary salaries and allowances.

PARLIAMENTS AND ELECTIONS

Commonwealth Parliaments since Federation

The following table shows the number and duration of parliaments since Federation.

COMMONWEALTH PARLIAMENTS

Number of Parliament	*Date of opening*	*Date of dissolution*
First	9 May 1901	23 November 1903
Second	2 March 1904	5 November 1906
Third	20 February 1907	19 February 1910
Fourth	1 July 1910	23 April 1913
Fifth	9 July 1913	(a)30 July 1914
Sixth	8 October 1914	26 March 1917
Seventh	14 June 1917	3 November 1919
Eighth	26 February 1920	6 November 1922
Ninth	28 February 1923	3 October 1925
Tenth	13 January 1926	9 October 1928
Eleventh	6 February 1929	16 September 1929
Twelfth	20 November 1929	27 November 1931
Thirteenth	17 February 1932	7 August 1934
Fourteenth	23 October 1934	21 September 1937
Fifteenth	30 November 1937	27 August 1940
Sixteenth	20 November 1940	7 July 1943
Seventeenth	23 September 1943	16 August 1946
Eighteenth	6 November 1946	31 October 1949
Nineteenth	22 February 1950	(a)19 March 1951
Twentieth	12 June 1951	21 April 1954
Twenty-first	4 August 1954	4 November 1955
Twenty-second	15 February 1956	14 October 1958
Twenty-third	17 February 1959	2 November 1961
Twenty-fourth	20 February 1962	1 November 1963
Twenty-fifth	25 February 1964	31 October 1966
Twenty-sixth	21 February 1967	29 September 1969
Twenty-seventh	25 November 1969	2 November 1972
Twenty-eighth	27 February 1973	(a)11 April 1974
Twenty-ninth	9 July 1974	(a)11 November 1975
Thirtieth	17 February 1976	8 November 1977
Thirty-first	21 February 1978	19 September 1980
Thirty-second	25 November 1980	(a)4 February 1983
Thirty-third	21 April 1983	26 October 1984
Thirty-fourth	21 February 1985	(a)5 June 1987
Thirty-fifth	14 September 1987	19 February 1990
Thirty-sixth	8 May 1990	27 December 1992

(a) A dissolution of both the Senate and the House of Representatives was granted by the Governor-General under section 57 of the Constitution.

Source: Department of the Parliamentary Library.

Qualifications for membership and for franchise — Commonwealth Parliament

Any Australian citizen, 18 years of age or over and who is, or is qualified to become, an elector of the Commonwealth Parliament is qualified for membership of either house of the Commonwealth Parliament. Any Australian citizen (or British subject who was on the Commonwealth Roll as at 25 January 1984) over 18 years of age is qualified to enrol and vote at federal elections. Residence in a subdivision for a period of one month before enrolment is necessary to enable a qualified person to enrol. Enrolment and voting are compulsory for all eligible persons.

The principal reasons for disqualification of persons otherwise eligible for election as members of either Commonwealth House are: membership of the other House; allegiance to a foreign power; being attainted of treason; being convicted and under sentence for any offence punishable by imprisonment for one year or longer; being an undischarged bankrupt or insolvent; holding an office of profit under the Crown (with certain exceptions); or having a pecuniary interest in any agreement with the public service of the Commonwealth except as a member of an incorporated company of more than 25 persons. Persons convicted of treason and not pardoned, or convicted and under sentence for any offence punishable by imprisonment for five years or longer, or of unsound mind, or persons who are holders of temporary entry permits under the Migration Act 1958 or are prohibited non-citizens under that Act, are excluded from enrolment and voting.

Commonwealth Parliaments — representation and elections

From the establishment of the Commonwealth of Australia until 1949 the Senate consisted of 36 members, 6 being returned by each of the original federating States. The Australian Constitution empowers the Commonwealth Parliament to increase or decrease the size of the Parliament, and, as the population of Australia had more than doubled since its inception, the Parliament passed the *Representation Act 1948* which provided that there should be 10 Senators from each State instead of six, thus increasing the total to 60 Senators, enlarging both Houses of Parliament and providing a representation ratio nearer to the proportion which existed at Federation. The *Representation Act 1983* further provided for 12 Senators for each State from the first meeting of the thirty-fourth Parliament.

The *Senate (Representation of Territories) Act 1973* made provision for two Senators to be elected from both the Northern Territory and the Australian Capital Territory. Elections for the Territory Senators are held at the same time as general elections for the House of Representatives.

In accordance with the Constitution, the total number of State Members of the House of Representatives must be as nearly as practicable twice the total number of State Senators. Consequent upon the increase in the size of the Senate in 1949, the number of State Members was increased from 74 to 121. In 1955 there were 122 State Members; in 1969, 123; in 1974, 124; in 1977, 121; in 1980, 122. From the first meeting of the thirty-fourth Parliament, there was a further increase of 23 to 145 State Members flowing from the increase in the number of State Senators to 72.

Since the redistribution of electorates in 1949 giving effect to the increase in the size of the House of Representatives, further redistributions have taken place in 1955, 1968, 1974 (Western Australia only), 1977, 1979 (Western Australia only), 1984, when the size of the Parliament was increased again, 1988–89 (Victoria and Western Australia only) and 1991 (New South Wales, Queensland, South Australia, Tasmania and the Australian Capital Territory). Redistributions must be held whenever the representation entitlement of a State changes, when more than one-third of the electorates in a State deviates from the quota by more than 10 per cent for more than two months, or every seven years. The quota (or average number) of electors is the basis for electoral distribution. There may be a deviation from the quota of up to 10 per cent in order to achieve equality of enrolment midway between redistributions. In determining boundaries, Redistribution Committees take account of economic, social and regional interests, means of communication and travel, the trend of population changes, physical features and area, and the existing boundaries of electoral divisions.

The Electoral Commissioner determines the representation entitlements of the States and Territories during the tenth month after the first meeting of a new House of Representatives. Determinations are based on the latest population statistics as provided by the Australian Statistician. The quota is ascertained by dividing the number of people of the Commonwealth by twice the number of Senators representing the States. The population of the Territories and all Senators representing the Territories are excluded from calculation when determining the quota. The population of each State and Territory is then divided by the quota to determine their representation entitlements. If there is a remaining fraction of over half a quota, the State or Territory is entitled to an additional seat. This accounts for the minor fluctuations in the size of the House of Representatives. The representation entitlements of the States at the three most recent determinations are shown in the following table, which also shows the Territorial representation and the total size of the Parliament. Under section 24 of the Constitution, Tasmania remains entitled to the five seats guaranteed to any original State in 1901.

REPRESENTATION ENTITLEMENTS OF THE STATES AND TERRITORIES

State/Territory	*1981*	*1984*	*1988*	*1991*
State				
New South Wales	43	51	51	50
Victoria	33	39	38	38
Queensland	19	24	24	25
South Australia	11	13	13	12
Western Australia	11	13	14	14
Tasmania	5	5	5	5
Territories				
Northern Territory	1	1	1	1
Australian Capital Territory	2	2	2	2
Total Parliament	**125**	**148**	**148**	**147**

Source: Department of the Parliamentary Library.

From 1922 to 1968 the Northern Territory was represented in a limited capacity by one member in the House of Representatives. In May 1968 the *Northern Territory Representation Act 1922* was amended to give full voting rights to the Member for the Northern Territory effective from 15 May 1968, the day on which the Act received Royal assent.

From 1948 to 1967 the Australian Capital Territory was represented in a limited capacity by one member in the House of Representatives. The Member for the Australian Capital Territory was granted full voting rights on 21 February 1967.

Following the passing of the *Australian Capital Territory Representation (House of Representatives) Act 1973* the Australian Capital Territory was divided into two electoral divisions.

Members of the House of Representatives are elected for the duration of the Parliament, which is limited to three years. At elections for Senators the whole State constitutes the electorate. For the purpose of elections for the House of Representatives the State is divided into single electorates corresponding in number to the number of members to which the State is entitled.

In 1948, amendments to the *Commonwealth Electoral Act 1918* changed the system of scrutiny and counting of votes in Senate elections from the alternative vote to that of proportional representation. The method of voting for both the Senate and the House of Representatives is preferential.

Particulars of voting at Senate elections and elections for the House of Representatives up to 1984 appear in earlier issues of *Year Book Australia.* Full details are contained in the *Election Statistics* issued by the Electoral Commissioner following each election.

The numbers of electors and of primary votes cast for the major political parties in each State and Territory at the latest election for each House of the Commonwealth Parliament were as follows:

COMMONWEALTH PARLIAMENT ELECTIONS, 24 MARCH 1990

	NSW	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Australia*
HOUSE OF REPRESENTATIVES									
Electors enrolled	3,630,841	2,781,547	1,805,141	966,431	982,901	310,076	78,994	172,200	10,728,131
Number of votes recorded for									
Australian Labor Party	1,380,780	951,674	695,291	339,218	316,186	115,053	34,106	71,830	3,904,138
Liberal Party	975,083	1,018,740	476,560	381,172	392,870	140,722	. .	55,755	3,440,902
National Party	377,687	154,069	280,120	. .	21,681	. .	. .	. .	833,557
Country National Party	. .	. .	. .	. .	. .	. .	27,668	. .	27,668
Australian Democrats	342,540	319,149	193,817	135,546	75,197	24,876	. .	23,091	1,114,216
Call to Australia	21,646	52,554	. .	22,297	. .	. .	. .	. .	96,497
Others	256,935	70,944	25,809	15,521	88,765	8,853	6,483	9,386	482,696
Formal votes	3,354,671	2,567,130	1,671,597	893,754	894,699	289,504	68,257	160,062	9,899,674
Informal votes	108,134	94,334	38,065	34,143	34,418	9,774	2,387	4,871	326,126
Total votes recorded	**3,462,805**	**2,661,464**	**1,709,662**	**927,897**	**929,117**	**299,278**	**70,644**	**164,933**	**10,225,800**
SENATE									
Electors enrolled	3,630,841	2,781,547	1,805,141	966,431	982,901	310,076	78,994	172,200	10,728,131
Number of votes recorded for									
Australian Labor Party	1,356,430	938,245	653,070	337,137	304,632	120,195	37,343	66,495	3,813,547
Liberal Party	. .	. .	490,523	376,073	392,820	128,374	. .	58,082	1,445,872
National Party	. .	. .	227,696	3,667	26,801	. .	. .	. .	258,164
Liberal–National Party	1,280,382	1,149,170	. .	. .	. .	. .	. .	. .	2,429,552
Country Liberal Party	. .	. .	. .	. .	. .	. .	29,045	. .	29,045
Australian Democrats	393,521	365,376	209,030	149,158	85,324	22,888	. .	28,510	1,253,807
Call to Australia	69,744	29,608	18,469	18,701	. .	. .	. .	. .	136,522
Western Australian Green Party	. .	. .		. .	76,381	. .	. .	. .	76,381
Environment Independents	27,046	16,655	30,967	. .	. .	. .	. .	. .	74,668
Others	211,019	80,466	44,441	23,387	22,140	19,835	2,335	8,584	412,207
Formal votes	3,338,142	2,579,520	1,674,196	908,123	908,098	291,292	68,723	161,671	9,929,765
Informal votes	145,429	96,171	42,112	23,438	26,733	9,300	1,977	3,905	349,065
Total votes recorded	**3,483,571**	**2,675,691**	**1,716,308**	**931,561**	**934,831**	**300,592**	**70,700**	**165,576**	**10,278,830**

Source: Department of the Parliamentary Library.

The state of the parties in each House at the commencement of the thirty-sixth Parliament was: Senate (after 1 July 1990) — Australian Labor Party 32; Liberal Party of Australia 29; National Party of Australia 5; Australian Democrats 8; Independents 2; House of Representatives — Australian Labor Party 78; Liberal Party of Australia 55; National Party of Australia 14; Independents 1.

Parliamentary salaries and allowances

The basic salary payable to a Senator or Member of the House of Representatives was $66,387 at 15 August 1991. In addition, Senators or Members receive an electoral allowance of $22,685 in the case of a Senator or a Member representing an electorate of less than 2,000 square kilometres, $26,975 in the case of a Member representing an electorate of 2,000 square kilometres or more, but less than 5,000 square kilometres, or $32,895 in the case of a Member representing an electorate of 5,000 square kilometres or more.

Referendums

In accordance with section 128 of the Constitution, any proposed law for the alteration of the Constitution, in addition to being passed by an absolute majority of each House of Parliament, (except in circumstances specified in section 128 of the Constitution which permits a referendum to proceed if passed by only one chamber), must be submitted to a referendum of the electors in each State and Territory and must be approved by a majority of the electors in a majority of the States and by a majority of all the voters who voted before it can be presented for Royal assent.

Since 1901, 42 proposals have been submitted to referendums. The consent of the electors has been received in eight cases: the first in relation to the election of Senators in 1906, the second (1910) and third (1928) in respect of State Debts, the fourth in respect of Social Services in 1946 and the fifth in respect of Aboriginals in 1967. The remaining three proposals in relation respectively to Senate casual vacancies, maximum retirement age for justices of the High Court and judges of other Federal Courts, and the right of electors in the Territories to vote in referendums for the alteration of the Constitution, were approved in May 1977. In addition to referendums for alterations of the Constitution, other Commonwealth referendums have been held — two prior to Federation regarding the proposed Constitution and two regarding military service during the World War I. A National song poll was held on 21 May 1977. Voting was preferential and after the distribution of preferences Advance Australia Fair became the National song of Australia.

For further details of referendums see *Year Book Australia 1966*, pages 66–68, *Year Book Australia 1974*, pages 90–91, *Year Book Australia 1977–78*, pages 72–73 and *Year Book Australia 1986*, pages 55–56.

The Parliaments of the States

This section contains summarised information; for greater detail refer to State *Year Books*.

STATE OF THE PARTIES IN COMMONWEALTH AND STATE PARLIAMENTS
JUNE 1992

Commonwealth			
House of Representatives		*Senate*	
ALP	77	ALP	32
LP	55	LP	29
NPA	14	AD	8
IND	2	NPA	5
		IND	2
New South Wales			
Legislative Assembly		*Legislative Council*	
ALP	47	ALP	18
LP	31	LP	13
NPA	17	NPA	7
IND	4	IND	2
		AD	2
Victoria			
Legislative Assembly		*Legislative Council*	
ALP	46	ALP	18
LP	33	LP	19
NPA	9	NPA	6
		IND	1
Queensland			
Legislative Assembly			
ALP	54		
NPA	26		
LP	9		
South Australia			
House of Assembly		*Legislative Council*	
ALP	21	ALP	10
LP	22	LP	10
NPA	1	AD	2
IND	3		
Western Australia			
Legislative Assembly		*Legislative Council*	
ALP	28	ALP	16
LP	19	LP	14
NPA	6	NPA	3
IND	4	IND	1

For footnotes *see* end of table.

STATE OF THE PARTIES IN COMMONWEALTH AND STATE PARLIAMENTS
JUNE 1992 — *continued*

Tasmania			
House of Assembly		*Legislative Council*	
LP	19	LP	1
ALP	11	ALP	1
IND	5	IND	17
Northern Territory			
Legislative Assembly			
CLP	14		
ALP	9		
IND	2		
Australian Capital Territory			
Legislative Assembly			
ALP	8		
LP	6		
IND	3		

NOTE: Explanation of abbreviations:
AD — Australian Democrats; ALP — Australian Labor Party; ASG — Abolish Self-Government; CLP — Country–Liberal Party; IND — Independent; LP — Liberal Party; NPA — National Party of Australia.

Source: Department of the Parliamentary Library.

ACTS OF THE COMMONWEALTH PARLIAMENTS

In the Commonwealth Parliament all laws are enacted in the name of the Sovereign, the Senate, and the House of Representatives. The subjects with respect to which the Commonwealth Parliament is empowered to make laws are enumerated in the Australian Constitution. In all States, other than South Australia and Tasmania, laws are enacted in the name of the Sovereign by and with the consent of the Legislative Council (except in Queensland) and Legislative Assembly. In South Australia and Tasmania laws are enacted in the name of the Governor of the State, with the advice and consent of the Parliament in the case of South Australia, and of the Legislative Council and House of Assembly in the case of Tasmania. Generally, assent to Bills passed by the Legislatures is given by the Governor-General or State Governor acting on behalf of, and in the name of, the Sovereign. In certain special cases Bills are reserved for the Royal assent. The Parliaments of the States are empowered generally, subject to the Australian Constitution, to make laws in and for their respective States in all cases whatsoever. The power of the States to make laws was enhanced in 1986 by the enactment by the Commonwealth Parliament of the *Australia Act 1986* and the accompanying *Australia (Request and Consent) Act 1986*. Subject to certain limitations they may alter, repeal, or vary their Constitutions. Where a law of a State is inconsistent with a law of the Commonwealth Parliament, the latter law prevails and the former law is, to the extent of the inconsistency, invalid.

The enactment of Commonwealth Parliament legislation

The legislation passed by the Commonwealth Parliament between 1901 and 1973, and which was then still in operation, was published in a consolidated form entitled *Acts of the Parliament 1901–1973*. Since 1974, annual volumes of Acts have also been published. The consolidation contains a chronological table of Acts passed from 1901 to 1973, showing how they are affected by subsequent legislation or lapse of time, together with a table of legislation of the Commonwealth Parliament passed between 1901 and 1973 in relation to the several provisions of the Australian Constitution. Reference should be made to these for complete information.

In 1990 the number of enactments of the Commonwealth Parliament was 144.

NATIONAL ANTHEM AND COLOURS OF AUSTRALIA

Details of the official proclamation issued on 19 April 1984 are as follows:

His Excellency, the Governor-General of the Commonwealth of Australia, issued the following Proclamation on 19 April 1984:

> I, SIR NINIAN MARTIN STEPHEN, Governor-General of the Commonwealth of Australia, acting with the advice of the Federal Executive Council, hereby declare:
>
> (a) that the anthem 'God Save The Queen' shall henceforth be known as the Royal Anthem and be used in the presence of Her Majesty The Queen or a member of the Royal Family;
>
> (b) that the National Anthem shall consist of the tune known as 'Advance Australia Fair' with the following words:
>
> *Australians all let us rejoice,*
> *For we are young and free,*
> *We've golden soil and wealth for toil;*
> *Our home is girt by sea;*
> *Our land abounds in nature's gifts*
> *Of beauty rich and rare,*
> *In history's page, let every stage*
> *Advance Australia Fair.*
> *In joyful strains then let us sing,*
> *Advance Australia Fair.*
>
> *Beneath our radiant Southern Cross*
> *We'll toil with hearts and hands;*
> *To make this Commonwealth of ours*
> *Renowned of all the lands;*
> *For those who've come across the seas*
> *We've boundless plains to share;*
> *With courage let us all combine*
> *To Advance Australia Fair.*
> *In joyful strains then let us sing,*
> *Advance Australia Fair.*
>
> (c) that the Vice-Regal Salute to be used in the presence of His Excellency The Governor-General shall consist of the first four bars and the last four bars of the tune known as 'Advance Australia Fair';
>
> (d) that the National Anthem shall be used on all official and ceremonial occasions, other than occasions on which either the Royal Anthem or the Vice-Regal Salute is used; and
>
> (e) that green and gold (Pantone Matching System numbers 116C and 348C as used for printing on paper) shall be the national colours of Australia for use on all occasions on which such colours are customarily used.

COMMONWEALTH OF AUSTRALIA
CONSTITUTION ACT

with alterations of the Constitution made by

CONSTITUTION ALTERATION (SENATE ELECTIONS) 1906
(No. 1 of 1907)

CONSTITUTION ALTERATION (STATE DEBTS) 1928
(No. 3 of 1910)

CONSTITUTION ALTERATION (STATE DEBTS) 1928
(No. 1 of 1929)

CONSTITUTION ALTERATION (SOCIAL SERVICES) 1946
(No. 81 of 1946)

CONSTITUTION ALTERATION (ABORIGINALS) 1967
(No. 55 of 1967)

CONSTITUTION ALTERATION (SENATE CASUAL VACANCIES) 1977
(No. 82 of 1977)

CONSTITUTION ALTERATION (RETIREMENT OF JUDGES) 1977
(No. 83 of 1977)

CONSTITUTION ALTERATION (REFERENDUMS) 1977
(No. 84 of 1977)

Note.—Words and phrases inserted by the Constitution Alterations specified above are shown in the text in bold type, while new sections and paragraphs may be identified from the marginal notes showing them as inserted, added or substituted.

Omitted words and phrases are ruled through in the text; repealed sections are shown in full in the Notes commencing on page 93.

THE CONSTITUTION

As Altered to 31 October 1986

(*See Note 1 on page 93*)

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THE CONSTITUTION

(63 & 64 VICTORIA, CHAPTER 12)

An Act to constitute the Commonwealth of Australia.

[9th July 1900]

WHEREAS the people of New South Wales, Victoria, South Australia, Queensland, and Tasmania, humbly relying on the blessing of Almighty God, have agreed to unite in one indissoluble Federal Commonwealth under the Crown of the United Kingdom of Great Britain and Ireland, and under the Constitution hereby established:

And whereas it is expedient to provide for the admission into the Commonwealth of other Australasian Colonies and possessions of the Queen:

Be it therefore enacted by the Queen's most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, as follows:—

Short title.

1. This Act may be cited as the Commonwealth of Australia Constitution Act.[1]

Act to extend to the Queen's successors.

2. The provisions of this Act referring to the Queen shall extend to Her Majesty's heirs and successors in the sovereignty of the United Kingdom.

Proclamation of Commonwealth.

3. It shall be lawful for the Queen, with the advice of the Privy Council, to declare by proclamation[2] that, on and after a day therein appointed, not being later than one year after the passing of this Act, the people of New South Wales, Victoria, South Australia, Queensland, and Tasmania, and also, if Her Majesty is satisfied that the people of Western Australia have agreed thereto, of Western Australia, shall be united in a Federal Commonwealth under the name of the Commonwealth of Australia. But the Queen may, at any time after the proclamation, appoint a Governor-General for the Commonwealth.

Commencement of Act.

4. The Commonwealth shall be established, and the Constitution of the Commonwealth shall take effect, on and after the day so appointed. But the Parliaments of the several colonies may at any time after the passing of this Act make any such laws, to come into operation on the day so appointed, as they might have made if the Constitution had taken effect at the passing of this Act.

Operation of the constitution and laws.

5. This Act, and all laws made by the Parliament of the Commonwealth under the Constitution, shall be binding on the courts, judges, and people of every State and of every part of the Commonwealth, notwithstanding anything in the laws of any State; and the laws of the Commonwealth shall be in force on all British ships, the Queen's ships of war excepted, whose first port of clearance and whose port of destination are in the Commonwealth.[3]

Definitions.

6. "The Commonwealth" shall mean the Commonwealth of Australia as established under this Act.

"The States" shall mean such of the colonies of New South Wales, New Zealand, Queensland, Tasmania, Victoria, Western Australia, and South Australia, including the northern territory of South Australia, as for the time being are parts of the Commonwealth, and such colonies or territories as may be admitted into or established by the Commonwealth as States; and each of such parts of the Commonwealth shall be called "a State."

"Original States" shall mean such States as are parts of the Commonwealth at its establishment.

Repeal of Federal Council Act. 48 & 49 Vict. c. 60.

7. The Federal Council of Australasia Act, 1885, is hereby repealed, but so as not to affect any laws passed by the Federal Council of Australasia and in force at the establishment of the Commonwealth.

Any such law may be repealed[4] as to any State by the Parliament of the Commonwealth, or as to any colony not being a State by the Parliament thereof.

Application of Colonial Boundaries Act. 58 & 59 Vict. c. 34.

8. After the passing of this Act the Colonial Boundaries Act, 1895, shall not apply to any colony which becomes a State of the Commonwealth; but the Commonwealth shall be taken to be a self-governing colony for the purposes of that Act.

Constitution.

9. The Constitution of the Commonwealth shall be as follows:—

THE CONSTITUTION.[1]

This Constitution is divided as follows:—

Chapter I.—The Parliament:
  Part I.—General:
  Part II.—The Senate:
  Part III.—The House of Representatives:
  Part IV.—Both Houses of the Parliament:
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CHAPTER I.

Chap. I.

THE PARLIAMENT.

The Parliament.

PART I.—GENERAL.

Part I.
General.

1. The legislative power of the Commonwealth shall be vested in a Federal Parliament, which shall consist of the Queen, a Senate, and a House of Representatives, and which is herein-after called "The Parliament," or "The Parliament of the Commonwealth."

Legislative power.

2. A Governor-General appointed by the Queen shall be Her Majesty's representative in the Commonwealth, and shall have and may exercise in the Commonwealth during the Queen's pleasure, but subject to this Constitution, such powers and functions of the Queen as Her Majesty may be pleased to assign to him.

Governor-General.

3. There shall be payable to the Queen out of the Consolidated Revenue fund of the Commonwealth, for the salary of the Governor-General, an annual sum which, until the Parliament otherwise provides, shall be ten thousand pounds.

Salary of Governor-General.

The salary of a Governor-General shall not be altered during his continuance in office.

4. The provisions of this Constitution relating to the Governor-General extend and apply to the Governor-General for the time being, or such person as the Queen may appoint to administer the Government of the Commonwealth; but no such person shall be entitled to receive any salary from the Commonwealth in respect of any other office during his administration of the Government of the Commonwealth.

Provisions relating to Governor-General.

5. The Governor-General may appoint such times for holding the sessions of the Parliament as he thinks fit, and may also from time to time, by Proclamation or otherwise, prorogue the Parliament, and may in like manner dissolve the House of Representatives.

Sessions of Parliament.
Prorogation and dissolution.

After any general election the Parliament shall be summoned to meet not later than thirty days after the day appointed for the return of the writs.

Summoning Parliament.

The Parliament shall be summoned to meet not later than six months after the establishment of the Commonwealth.

First Session.

6. There shall be a session of the Parliament once at least in every year, so that twelve months shall not intervene between the last sitting of the Parliament in one session and its first sitting in the next session.

Yearly session of Parliament.

Part II.
The Senate.

PART II.—THE SENATE.

The Senate.

7. The Senate shall be composed of senators for each State, directly chosen by the people of the State, voting, until the Parliament otherwise provides, as one electorate.

But until the Parliament of the Commonwealth otherwise provides, the Parliament of the State of Queensland, if that State be an Original State, may make laws dividing the State into divisions and determining the number of senators to be chosen for each division, and in the absence of such provision the State shall be one electorate.

Until the Parliament otherwise provides there shall be six senators for each Original State. The Parliament may make laws increasing or diminishing the number of senators for each State,[5] but so that equal representation of the several Original States shall be maintained and that no Original State shall have less than six senators.

The senators shall be chosen for a term of six years, and the names of the senators chosen for each State shall be certified by the Governor to the Governor-General.

Qualification of electors.

8. The qualification of electors of senators shall be in each State that which is prescribed by this Constitution, or by the Parliament, as the qualification for electors of members of the House of Representatives; but in the choosing of senators each elector shall vote only once.

Method of election of senators.

9. The Parliament of the Commonwealth may make laws prescribing the method of choosing senators, but so that the method shall be uniform for all the States. Subject to any such law, the Parliament of each State may make laws[6] prescribing the method of choosing the senators for that State.

Times and places.

The Parliament of a State may make laws[6] for determining the times and places of elections of senators for the State.

Application of State laws.

10. Until the Parliament otherwise provides, but subject to this Constitution, the laws in force in each State, for the time being, relating to elections for the more numerous House of the Parliament of the State shall, as nearly as practicable, apply to elections of senators for the State.

Failure to choose senators.

11. The Senate may proceed to the despatch of business, notwithstanding the failure of any State to provide for its representation in the Senate.

Issue of writs.

12. The Governor of any State may cause writs to be issued for elections of senators for the State. In case of the dissolution of the Senate the writs shall be issued within ten days from the proclamation of such dissolution.

13. As soon as may be after the Senate first meets, and after each first meeting of the Senate following a dissolution thereof, the Senate shall divide the senators chosen for each State into two classes, as nearly equal in number as practicable; and the places of the senators of the first class shall become vacant at the expiration of ~~the third year~~ **three years**, and the places of those of the second class at the expiration of ~~the sixth year~~ **six years**, from the beginning of their term of service; and afterwards the places of senators shall become vacant at the expiration of six years from the beginning of their term of service.

Rotation of senators. Altered by No. 1, 1907, s. 2.

The election to fill vacant places shall be made ~~in the year at the expiration of which~~ **within one year before** the places are to become vacant.

For the purposes of this section the term of service of a senator shall be taken to begin on the first day of ~~January~~ **July** following the day of his election, except in the cases of the first election and of the election next after any dissolution of the Senate, when it shall be taken to begin on the first day of ~~January~~ **July** preceding the day of his election.

14. Whenever the number of senators for a State is increased or diminished, the Parliament of the Commonwealth may make such provision for the vacating of the places of senators for the State as it deems necessary to maintain regularity in the rotation.[7]

Further provision for rotation.

15.[8] If the place of a senator becomes vacant before the expiration of his term of service, the Houses of Parliament of the State for which he was chosen, sitting and voting together, or, if there is only one House of that Parliament, that House, shall choose a person to hold the place until the expiration of the term. But if the Parliament of the State is not in session when the vacancy is notified, the Governor of the State, with the advice of the Executive Council thereof, may appoint a person to hold the place until the expiration of fourteen days from the beginning of the next session of the Parliament of the State or the expiration of the term, whichever first happens.

Casual vacancies. Substituted by No. 82, 1977, s. 2.

Where a vacancy has at any time occurred in the place of a senator chosen by the people of a State and, at the time when he was so chosen, he was publicly recognized by a particular political party as being an endorsed candidate of that party and publicly represented himself to be such a candidate, a person chosen or appointed under this section in consequence of that vacancy, or in consequence of that vacancy and a subsequent vacancy or vacancies, shall, unless there is no member of that party available to be chosen or appointed, be a member of that party.

Where—

(a) in accordance with the last preceding paragraph, a member of a particular political party is chosen or appointed to hold the place of a senator whose place had become vacant; and

(b) before taking his seat he ceases to be a member of that party (otherwise than by reason of the party having ceased to exist),

he shall be deemed not to have been so chosen or appointed and the vacancy shall be again notified in accordance with section twenty-one of this Constitution.

The name of any senator chosen or appointed under this section shall be certified by the Governor of the State to the Governor-General.

If the place of a senator chosen by the people of a State at the election of senators last held before the commencement of the *Constitution Alteration (Senate Casual Vacancies)* 1977 became vacant before that commencement and, at that commencement, no person chosen by the House or Houses of Parliament of the State, or appointed by the Governor of the State, in consequence of that vacancy, or in consequence of that vacancy and a subsequent vacancy or vacancies, held office, this section applies as if the place of the senator chosen by the people of the State had become vacant after that commencement.

A senator holding office at the commencement of the *Constitution Alteration (Senate Casual Vacancies)* 1977, being a senator appointed by the Governor of a State in consequence of a vacancy that had at any time occurred in the place of a senator chosen by the people of the State, shall be deemed to have been appointed to hold the place until the expiration of fourteen days after the beginning of the next session of the Parliament of the State that commenced or commences after he was appointed and further action under this section shall be taken as if the vacancy in the place of the senator chosen by the people of the State had occurred after that commencement.

Subject to the next succeeding paragraph, a senator holding office at the commencement of the *Constitution Alteration (Senate Casual Vacancies)* 1977 who was chosen by the House or Houses of Parliament of a State in consequence of a vacancy that had at any time occurred in the place of a senator chosen by the people of the State shall be deemed to have been chosen to hold office until the expiration of the term of service of the senator elected by the people of the State.

If, at or before the commencement of the *Constitution Alteration (Senate Casual Vacancies)* 1977, a law to alter the Constitution entitled "*Constitution Alteration (Simultaneous Elections)* 1977" came into operation,[9] a senator holding office at the commencement of that law who was chosen by the House or Houses of Parliament of a State in consequence of a vacancy that had at any time occurred in the place of a Senator chosen by the people of the State shall be deemed to have been chosen to hold office—

(a) if the senator elected by the people of the State had a term of service expiring on the thirtieth day of June, One thousand nine hundred and seventy-eight—until the expiration or dissolution of the first House of Representatives to expire or be dissolved after that law came into operation; or

(b) if the senator elected by the people of the State had a term of service expiring on the thirtieth day of June, One thousand nine hundred and eighty-one—until the expiration or dissolution of the second House of Representatives to expire or be dissolved after that law came into operation or, if there is an earlier dissolution of the Senate, until that dissolution.

Qualifications of senator.

16. The qualifications of a senator shall be the same as those of a member of the House of Representatives.

Election of President.

17. The Senate shall, before proceeding to the despatch of any other business, choose a senator to be the President of the Senate; and as often as the office of President becomes vacant the Senate shall again choose a senator to be the President.

The President shall cease to hold his office if he ceases to be a senator. He may be removed from office by a vote of the Senate, or he may resign his office or his seat by writing addressed to the Governor-General.

Absence of President.

18. Before or during any absence of the President, the Senate may choose a senator to perform his duties in his absence.

Resignation of senator.

19. A senator may, by writing addressed to the President, or to the Governor-General if there is no President or if the President is absent from the Commonwealth, resign his place, which thereupon shall become vacant.

Vacancy by absence.

20. The place of a senator shall become vacant if for two consecutive months of any session of the Parliament he, without the permission of the Senate, fails to attend the Senate.

Vacancy to be notified.

21. Whenever a vacancy happens in the Senate, the President, or if there is no President or if the President is absent from the Commonwealth the Governor-General, shall notify the same to the Governor of the State in the representation of which the vacancy has happened.

Quorum.

22. Until the Parliament otherwise provides, the presence of at least one-third of the whole number of the senators shall be necessary to constitute a meeting of the Senate for the exercise of its powers.

Voting in the Senate.

23. Questions arising in the Senate shall be determined by a majority of votes, and each senator shall have one vote. The President shall in all cases be entitled to a vote; and when the votes are equal the question shall pass in the negative.

PART III.—THE HOUSE OF REPRESENTATIVES.

Part III.
House of
Representatives.

Constitution of House of Representatives.

24. The House of Representatives shall be composed of members directly chosen by the people of the Commonwealth, and the number of such members shall be, as nearly as practicable, twice the number of the senators.

The number of members chosen in the several States shall be in proportion to the respective numbers of their people, and shall, until the Parliament otherwise provides, be determined, whenever necessary, in the following manner:—

(i.) A quota shall be ascertained by dividing the number of the people of the Commonwealth, as shown by the latest statistics of the Commonwealth, by twice the number of the senators:

(ii.) The number of members to be chosen in each State shall be determined by dividing the number of the people of the State, as shown by the latest statistics of the Commonwealth, by the quota; and if on such division there is a remainder greater than one-half of the quota, one more member shall be chosen in the State.

But notwithstanding anything in this section, five members at least shall be chosen in each Original State.

Provision as to races disqualified from voting.

25. For the purposes of the last section, if by the law of any State all persons of any race are disqualified from voting at elections for the more numerous House of the Parliament of the State, then, in reckoning the number of the people of the State or of the Commonwealth, persons of that race resident in that State shall not be counted.

Representatives in first Parliament.

26. Notwithstanding anything in section twenty-four, the number of members to be chosen in each State at the first election shall be as follows:—

New South Wales	twenty-three;
Victoria	twenty;
Queensland	eight;
South Australia	six;
Tasmania	five;

Provided that if Western Australia is an Original State, the numbers shall be as follows:—

New South Wales	twenty-six;
Victoria	twenty-three;
Queensland	nine;
South Australia	seven;
Western Australia	five;
Tasmania	five.

Alteration of number of members.

27. Subject to this Constitution, the Parliament may make laws for increasing or diminishing the number of the members of the House of Representatives.

Duration of House of Representatives.

28. Every House of Representatives shall continue for three years from the first meeting of the House, and no longer, but may be sooner dissolved by the Governor-General.

Electoral divisions.

29. Until the Parliament of the Commonwealth otherwise provides, the Parliament of any State may make laws[10] for determining the divisions in each State for which members of the House of Representatives may be chosen, and the number of members to be chosen for each division. A division shall not be formed out of parts of different States.

In the absence of other provision, each State shall be one electorate.

Qualification of electors.

30. Until the Parliament otherwise provides, the qualification of electors of members of the House of Representatives shall be in each State that which is prescribed by the law of the State as the qualification of electors of the more numerous House of Parliament of the State; but in the choosing of members each elector shall vote only once.

Application of State laws.

31. Until the Parliament otherwise provides, but subject to this Constitution, the laws in force in each State for the time being relating to elections for the more numerous House of the Parliament of the State shall, as nearly as practicable, apply to elections in the State of members of the House of Representatives.

Writs for general election.

32. The Governor-General in Council may cause writs to be issued for general elections of members of the House of Representatives.

After the first general election, the writs shall be issued within ten days from the expiry of a House of Representatives or from the proclamation of a dissolution thereof.

Writs for vacancies.

33. Whenever a vacancy happens in the House of Representatives, the Speaker shall issue his writ for the election of a new member, or if there is no Speaker or if he is absent from the Commonwealth the Governor-General in Council may issue the writ.

Qualifications of members.

34. Until the Parliament otherwise provides, the qualifications of a member of the House of Representatives shall be as follows:—

(i.) He must be of the full age of twenty-one years, and must be an elector entitled to vote at the election of members of the House of Representatives, or a person qualified to become such elector, and must have been for three years at the least a resident within the limits of the Commonwealth as existing at the time when he is chosen;

(ii.) He must be a subject of the Queen, either natural-born or for at least five years naturalized under a law of the United Kingdom, or of a Colony which has become or becomes a State, or of the Commonwealth, or of a State.

Election of Speaker.

35. The House of Representatives shall, before proceeding to the despatch of any other business, choose a member to be the Speaker of the House, and as often as the office of Speaker becomes vacant the House shall again choose a member to be the Speaker.

The Speaker shall cease to hold his office if he ceases to be a member. He may be removed from office by a vote of the House, or he may resign his office or his seat by writing addressed to the Governor-General.

Absence of Speaker.

36. Before or during any absence of the Speaker, the House of Representatives may choose a member to perform his duties in his absence.

Resignation of member.

37. A member may by writing addressed to the Speaker, or to the Governor-General if there is no Speaker or if the Speaker is absent from the Commonwealth, resign his place, which thereupon shall become vacant.

Vacancy by absence.

38. The place of a member shall become vacant if for two consecutive months of any session of the Parliament he, without the permission of the House, fails to attend the House.

Quorum.

39. Until the Parliament otherwise provides, the presence of at least one-third of the whole number of the members of the House of Representatives shall be necessary to constitute a meeting of the House for the exercise of its powers.

Voting in House of Representatives.

40. Questions arising in the House of Representatives shall be determined by a majority of votes other than that of the Speaker. The Speaker shall not vote unless the numbers are equal, and then he shall have a casting vote.

PART IV.—BOTH HOUSES OF THE PARLIAMENT.

Part IV.
Both Houses
of the
Parliament.

Right of electors of States.

41. No adult person who has or acquires a right to vote at elections for the more numerous House of the Parliament of a State shall, while the right continues, be prevented by any law of the Commonwealth from voting at elections for either House of the Parliament of the Commonwealth.

Oath or affirmation of allegiance.

42. Every senator and every member of the House of Representatives shall before taking his seat make and subscribe before the Governor-General, or some person authorised by him, an oath or affirmation of allegiance in the form set forth in the schedule to this Constitution.

Member of one House ineligible for other.

43. A member of either House of the Parliament shall be incapable of being chosen or of sitting as a member of the other House.

Disqualification.

44. Any person who—

(i.) Is under any acknowledgment of allegiance, obedience, or adherence to a foreign power, or is a subject or a citizen or entitled to the rights or privileges of a subject or a citizen of a foreign power: or

(ii.) Is attainted of treason, or has been convicted and is under sentence, or subject to be sentenced, for any offence punishable under the law of the Commonwealth or of a State by imprisonment for one year or longer: or

(iii.) Is an undischarged bankrupt or insolvent: or

(iv.) Holds any office of profit under the Crown, or any pension payable during the pleasure of the Crown out of any of the revenues of the Commonwealth: or

(v.) Has any direct or indirect pecuniary interest in any agreement with the Public Service of the Commonwealth otherwise than as a member and in common with the other members of an incorporated company consisting of more than twenty-five persons:

shall be incapable of being chosen or of sitting as a senator or a member of the House of Representatives.

But sub-section iv. does not apply to the office of any of the Queen's Ministers of State for the Commonwealth, or of any of the Queen's Ministers for a State, or to the receipt of pay, half pay, or a pension, by any person as an officer or member of the Queen's navy or army, or to the receipt of pay as an officer or member of the naval or military forces of the Commonwealth by any person whose services are not wholly employed by the Commonwealth.

Vacancy on happening of disqualification.

45. If a senator or member of the House of Representatives—

(i.) Becomes subject to any of the disabilities mentioned in the last preceding section: or

(ii.) Takes the benefit, whether by assignment, composition, or otherwise, of any law relating to bankrupt or insolvent debtors: or

(iii.) Directly or indirectly takes or agrees to take any fee or honorarium for services rendered to the Commonwealth, or for services rendered in the Parliament to any person or State:

his place shall thereupon become vacant.

46. Until the Parliament otherwise provides, any person declared by this Constitution to be incapable of sitting as a senator or as a member of the House of Representatives shall, for every day on which he so sits, be liable to pay the sum of one hundred pounds to any person who sues for it in any court of competent jurisdiction.

Penalty for sitting when disqualified.

47. Until the Parliament otherwise provides, any question respecting the qualification of a senator or of a member of the House of Representatives, or respecting a vacancy in either House of the Parliament, and any question of a disputed election to either House, shall be determined by the House in which the question arises.

Disputed elections.

48. Until the Parliament otherwise provides, each senator and each member of the House of Representatives shall receive an allowance of four hundred pounds a year, to be reckoned from the day on which he takes his seat.

Allowances to members.

49. The powers, privileges, and immunities of the Senate and of the House of Representatives, and of the members and the committees of each House, shall be such as are declared by the Parliament, and until declared shall be those of the Commons House of Parliament of the United Kingdom, and of its members and committees, at the establishment of the Commonwealth.

Privileges, &c. of Houses.

50. Each House of the Parliament may make rules and orders with respect to—

Rules and orders.

(i.) The mode in which its powers, privileges, and immunities may be exercised and upheld:

(ii.) The order and conduct of its business and proceedings either separately or jointly with the other House.

PART V.—POWERS OF THE PARLIAMENT.

Part V. Powers of the Parliament.

51. The Parliament shall, subject to this Constitution, have power[11] to make laws for the peace, order, and good government of the Commonwealth with respect to:—

Legislative powers of the Parliament.

(i.) Trade and commerce with other countries, and among the States:

(ii.) Taxation; but so as not to discriminate between States or parts of States:

(iii.) Bounties on the production or export of goods, but so that such bounties shall be uniform throughout the Commonwealth:

(iv.) Borrowing money on the public credit of the Commonwealth:

(v.) Postal, telegraphic, telephonic, and other like services:

(vi.) The naval and military defence of the Commonwealth and of the several States, and the control of the forces to execute and maintain the laws of the Commonwealth:

(vii.) Lighthouses, lightships, beacons and buoys:

(viii.) Astronomical and meteorological observations:

(ix.) Quarantine:

(x.) Fisheries in Australian waters beyond territorial limits:

(xi.) Census and statistics:

(xii.) Currency, coinage, and legal tender:

(xiii.) Banking, other than State banking; also State banking extending beyond the limits of the State concerned, the incorporation of banks, and the issue of paper money:

(xiv.) Insurance, other than State insurance; also State insurance extending beyond the limits of the State concerned:

(xv.) Weights and measures:

(xvi.) Bills of exchange and promissory notes:

(xvii.) Bankruptcy and insolvency:

(xviii.) Copyrights, patents of inventions and designs, and trade marks:

(xix.) Naturalization and aliens:

(xx.) Foreign corporations, and trading or financial corporations formed within the limits of the Commonwealth:

(xxi.) Marriage:

(xxii.) Divorce and matrimonial causes; and in relation thereto, parental rights, and the custody and guardianship of infants:

(xxiii.) Invalid and old-age pensions:

Inserted by No. 81, 1946, s. 2.

(xxiiiA.) The provision of maternity allowances, widows' pensions, child endowment, unemployment, pharmaceutical, sickness and hospital benefits, medical and dental services (but not so as to authorize any form of civil conscription), benefits to students and family allowances:

(xxiv.) The service and execution throughout the Commonwealth of the civil and criminal process and the judgments of the courts of the States:

(xxv.) The recognition throughout the Commonwealth of the laws, the public Acts and records, and the judicial proceedings of the States:

Altered by No. 55, 1967, s. 2

(xxvi.) The people of any race~~, other than the aboriginal race in any State,~~ for whom it is deemed necessary to make special laws:

(xxvii.) Immigration and emigration:

(xxviii.) The influx of criminals:

(xxix.) External affairs:

(xxx.) The relations of the Commonwealth with the islands of the Pacific:

(xxxi.) The acquisition of property on just terms from any State or person for any purpose in respect of which the Parliament has power to make laws:

(xxxii.) The control of railways with respect to transport for the naval and military purposes of the Commonwealth:

(xxxiii.) The acquisition, with the consent of a State, of any railways of the State on terms arranged between the Commonwealth and the State:

(xxxiv.) Railway construction and extension in any State with the consent of that State:

(xxxv.) Conciliation and arbitration for the prevention and settlement of industrial disputes extending beyond the limits of any one State:

(xxxvi.) Matters in respect of which this Constitution makes provision until the Parliament otherwise provides:

(xxxvii.) Matters referred to the Parliament of the Commonwealth by the Parliament or Parliaments of any State or States,[12] but so that the law shall extend only to States by whose Parliaments the matter is referred, or which afterwards adopt the law:

(xxxviii.) The exercise within the Commonwealth, at the request or with the concurrence of the Parliaments of all the States directly concerned, of any power which can at the establishment of this Constitution be exercised only by the Parliament of the United Kingdom or by the Federal Council of Australasia:

(xxxix.) Matters incidental to the execution of any power vested by this Constitution in the Parliament or in either House thereof, or in the Government of the Commonwealth, or in the Federal Judicature, or in any Department or officer of the Commonwealth.

Exclusive powers of the Parliament.

52. The Parliament shall, subject to this Constitution, have exclusive power to make laws for the peace, order, and good government of the Commonwealth with respect to—

(i.) The seat of government of the Commonwealth, and all places acquired by the Commonwealth for public purposes:

(ii.) Matters relating to any department of the public service the control of which is by this Constitution transferred to the Executive Government of the Commonwealth:

(iii.) Other matters declared by this Constitution to be within the exclusive power of the Parliament.

Powers of the Houses in respect of legislation.

53. Proposed laws appropriating revenue or moneys, or imposing taxation, shall not originate in the Senate. But a proposed law shall not be taken to appropriate revenue or moneys, or to impose taxation, by reason only of its containing provisions for the imposition or appropriation of fines or other pecuniary penalties, or for the demand or payment or appropriation of fees for licences, or fees for services under the proposed law.

The Senate may not amend proposed laws imposing taxation, or proposed laws appropriating revenue or moneys for the ordinary annual services of the Government.

The Senate may not amend any proposed law so as to increase any proposed charge or burden on the people.

The Senate may at any stage return to the House of Representatives any proposed law which the Senate may not amend, requesting, by message, the omission or amendment of any items or provisions therein. And the House of Representatives may, if it thinks fit, make any of such omissions or amendments, with or without modifications.

Except as provided in this section, the Senate shall have equal power with the House of Representatives in respect of all proposed laws.

Appropriation Bills.

54. The proposed law which appropriates revenue or moneys for the ordinary annual services of the Government shall deal only with such appropriation.

Tax Bill.

55. Laws imposing taxation shall deal only with the imposition of taxation, and any provision therein dealing with any other matter shall be of no effect.

Laws imposing taxation, except laws imposing duties of customs or of excise, shall deal with one subject of taxation only; but laws imposing duties of customs shall deal with duties of customs only, and laws imposing duties of excise shall deal with duties of excise only.

Recommendation of money votes.

56. A vote, resolution, or proposed law for the appropriation of revenue of moneys shall not be passed unless the purpose of the appropriation has in the same session been recommended by message of the Governor-General to the House in which the proposal originated.

Disagreement between the Houses.

57. If the House of Representatives passes any proposed law, and the Senate rejects or fails to pass it, or passes it with amendments to which the House of Representatives will not agree, and if after an interval of three months the House of Representatives, in the same or the next session, again passes the proposed law with or without any amendments which have been made, suggested, or agreed to by the Senate, and the Senate rejects or fails to pass it, or passes it with amendments to which the House of Representatives will not agree, the Governor-General may dissolve the Senate and the House of Representatives simultaneously. But such dissolution shall not take place within six months before the date of the expiry of the House of Representatives by effluxion of time.

If after such dissolution the House of Representatives again passes the proposed law, with or without any amendments which have been made, suggested, or agreed to by the Senate, and the Senate rejects or fails to pass it, or passes it with amendments to which the House of Representatives will not agree, the Governor-General may convene a joint sitting of the members of the Senate and of the House of Representatives.

The members present at the joint sitting may deliberate and shall vote together upon the proposed law as last proposed by the House of Representatives, and upon amendments, if any, which have been made therein by one House and not agreed to by the other, and any such amendments which are affirmed by an absolute majority of the total number of the members of the Senate and the House of Representatives shall be taken to have been carried, and if the proposed law, with the amendments, if any, so carried is affirmed by an absolute majority of the total number of the members of the Senate and House of Representatives, it shall be taken to have been duly passed by both Houses of the Parliament, and shall be presented to the Governor-General for the Queen's assent.

58. When a proposed law passed by both Houses of the Parliament is presented to the Governor-General for the Queen's assent, he shall declare, according to his discretion, but subject to this Constitution, that he assents in the Queen's name, or that he withholds assent, or that he reserves the law for the Queen's pleasure.

Royal assent to Bill.

The Governor-General may return to the house in which it originated any proposed law so presented to him, and may transmit therewith any amendments which he may recommend, and the Houses may deal with the recommendation.

Recommendations by Governor-General.

59. The Queen may disallow any law within one year from the Governor-General's assent, and such disallowance on being made known by the Governor-General by speech or message to each of the Houses of the Parliament, or by Proclamation, shall annul the law from the day when the disallowance is so made known.

Disallowance by the Queen.

60. A proposed law reserved for the Queen's pleasure shall not have any force unless and until within two years from the day on which it was presented to the Governor-General for the Queen's assent the Governor-General makes known, by speech or message to each of the Houses of the Parliament, or by Proclamation, that it has received the Queen's assent.

Signification of Queen's pleasure on Bills reserved.

CHAPTER II.

THE EXECUTIVE GOVERNMENT.

Chap. II.
The Government.

61. The executive power of the Commonwealth is vested in the Queen and is exercisable by the Governor-General as the Queen's representative, and extends to the execution and maintenance of this Constitution, and of the laws of the Commonwealth.

Executive power.

62. There shall be a Federal Executive Council to advise the Governor-General in the government of the Commonwealth, and the members of the Council shall be chosen and summoned by the Governor-General and sworn as Executive Councillors, and shall hold office during his pleasure.

Federal Executive Council.

63. The provisions of this Constitution referring to the Governor-General in Council shall be construed as referring to the Governor-General acting with the advice of the Federal Executive Council.

Provisions referring to Governor-General.

64. The Governor-General may appoint officers to administer such departments of State of the Commonwealth as the Governor-General in Council may establish.

Ministers of State.

Such officers shall hold office during the pleasure of the Governor-General. They shall be members of the Federal Executive Council, and shall be the Queen's Ministers of State for the Commonwealth.

After the first general election no Minister of State shall hold office for a longer period than three months unless he is or becomes a senator or a member of the House of Representatives.

Ministers to sit in Parliament.

Number of Ministers.

65. Until the Parliament otherwise provides, the Ministers of State shall not exceed seven in number, and shall hold such offices as the Parliament prescribes, or, in the absence of provision, as the Governor-General directs.

Salaries of Ministers.

66. There shall be payable to the Queen, out of the Consolidated Revenue Fund of the Commonwealth, for the salaries of the Ministers of State, an annual sum which, until the Parliament otherwise provides, shall not exceed twelve thousand pounds a year.

Appointment of civil servants.

67. Until the Parliament otherwise provides, the appointment and removal of all other officers of the Executive Government of the Commonwealth shall be vested in the Governor-General in Council, unless the appointment is delegated by the Governor-General in Council or by a law of the Commonwealth to some other authority.

Command of naval and military forces.

68. The command in chief of the naval and military forces of the Commonwealth is vested in the Governor-General as the Queen's representative.

Transfer of certain departments.

69. On a date or dates to be proclaimed by the Governor-General after the establishment of the Commonwealth the following departments of the public service in each State shall become transferred to the Commonwealth:—

Posts, telegraphs, and telephones:
Naval and military defence:
Lighthouses, lightships, beacons and buoys:
Quarantine.

But the departments of customs and of excise in each State shall become transferred to the Commonwealth on its establishment.

Certain powers of Governors to vest in Governor-General.

70. In respect of matters which, under this Constitution, pass to the Executive Government of the Commonwealth, all powers and functions which at the establishment of the Commonwealth are vested in the Governor of a Colony, or in the Governor of a Colony with the advice of his Executive Council, or in any authority of a Colony, shall vest in the Governor-General, or in the Governor-General in Council, or in the authority exercising similar powers under the Commonwealth, as the case requires.

Chap. III.
The Judicature.

CHAPTER III.

THE JUDICATURE.

Judicial power and Courts.

71. The judicial power of the Commonwealth shall be vested in a Federal Supreme Court, to be called the High Court of Australia, and in such other federal courts as the Parliament creates, and in such other courts as it invests with federal jurisdiction. The High Court shall consist of a Chief Justice, and so many other Justices, not less than two, as the Parliament prescribes.

72. The Justices of the High Court and of the other courts created by the Parliament—

Judges' appointment, tenure and remuneration.

(i.) Shall be appointed by the Governor-General in Council:

(ii.) Shall not be removed except by the Governor-General in Council, on an address from both Houses of the Parliament in the same session, praying for such removal on the ground of proved misbehaviour or incapacity:

(iii.) Shall receive such remuneration as the Parliament may fix; but the remuneration shall not be diminished during their continuance in office.

The appointment of a Justice of the High Court shall be for a term expiring upon his attaining the age of seventy years, and a person shall not be appointed as a Justice of the High Court if he has attained that age.

Paragraph added by No. 83, 1977, s. 2.

The appointment of a Justice of a court created by the Parliament shall be for a term expiring upon his attaining the age that is, at the time of his appointment, the maximum age for Justices of that court and a person shall not be appointed as a Justice of such a court if he has attained the age that is for the time being the maximum age for Justices of that court.

Paragraph added by No. 83, 1977, s. 2.

Subject to this section, the maximum age for Justices of any court created by the Parliament is seventy years.

Paragraph added by No. 83, 1977, s. 2.

The Parliament may make a law fixing an age that is less than seventy years as the maximum age for Justices of a court created by the Parliament and may at any time repeal or amend such a law, but any such repeal or amendment does not affect the term of office of a Justice under an appointment made before the repeal or amendment.

Paragraph added by No. 83, 1977, s. 2.

A Justice of the High Court or of a court created by the Parliament may resign his office by writing under his hand delivered to the Governor-General.

Paragraph added by No. 83, 1977, s. 2.

Nothing in the provisions added to this section by the *Constitution Alteration (Retirement of Judges)* 1977 affects the continuance of a person in office as a Justice of a court under an appointment made before the commencement of those provisions.

Paragraph added by No. 83, 1977, s. 2.

A reference in this section to the appointment of a Justice of the High Court or of a court created by the Parliament shall be read as including a reference to the appointment of a person who holds office as a Justice of the High Court or of a court created by the Parliament to another office of Justice of the same court having a different status or designation.

Paragraph added by No. 83, 1977, s. 2.

73. The High Court shall have jurisdiction, with such exceptions and subject to such regulations as the Parliament prescribes, to hear and determine appeals from all judgments, decrees, orders, and sentences—

Appellate jurisdiction of High Court.

(i.) Of any Justice or Justices exercising the original jurisdiction of the High Court:

(ii.) Of any other federal court, or court exercising federal jurisdiction; or of the Supreme Court of any State, or of any other court of any State from which at the establishment of the Commonwealth an appeal lies to the Queen in Council:

(iii.) Of the Inter-State Commission, but as to questions of law only:

and the judgment of the High Court in all such cases shall be final and conclusive.

But no exception or regulation prescribed by the Parliament shall prevent the High Court from hearing and determining any appeal from the Supreme Court of a State in any matter in which at the establishment of the Commonwealth an appeal lies from such Supreme Court to the Queen in Council.

Until the Parliament otherwise provides, the conditions of and restrictions on appeals to the Queen in Council from the Supreme Courts of the several States shall be applicable to appeals from them to the High Court.

Appeal to Queen in Council.

74. No appeal shall be permitted to the Queen in Council from a decision of the High Court upon any question, howsoever arising, as to the limits inter se of the Constitutional powers of the Commonwealth and those of any State or States, or as to the limits inter se of the Constitutional powers of any two or more States, unless the High Court shall certify that the question is one which ought to be determined by Her Majesty in Council.

The High Court may so certify if satisfied that for any special reason the certificate should be granted, and thereupon an appeal shall lie to Her Majesty in Council on the question without further leave.

Except as provided in this section, this Constitution shall not impair any right which the Queen may be pleased to exercise by virtue of Her Royal prerogative to grant special leave of appeal from the High Court to Her Majesty in Council. The Parliament may make laws limiting the matters in which such leave may be asked,[13] but proposed laws containing any such limitation shall be reserved by the Governor-General for Her Majesty's pleasure.

Original jurisdiction of High Court.

75. In all matters—

(i.) Arising under any treaty:

(ii.) Affecting consuls or other representatives of other countries:

(iii.) In which the Commonwealth, or a person suing or being sued on behalf of the Commonwealth, is a party:

(iv.) Between States, or between residents of different States, or between a State and a resident of another State:

(v.) In which a writ of Mandamus or prohibition or an injunction is sought against an officer of the Commonwealth:

the High Court shall have original jurisdiction.

Additional original jurisdiction.

76. The Parliament may make laws conferring original jurisdiction on the High Court in any matter—

(i.) Arising under this Constitution, or involving its interpretation:

(ii.) Arising under any laws made by the Parliament:

(iii.) Of Admiralty and maritime jurisdiction:

(iv.) Relating to the same subject-matter claimed under the laws of different States.

77. With respect to any of the matters mentioned in the last two sections the Parliament may make laws— Power to define jurisdiction.

(i.) Defining the jurisdiction of any federal court other than the High Court:

(ii.) Defining the extent to which the jurisdiction of any federal court shall be exclusive of that which belongs to or is invested in the courts of the States:

(iii.) Investing any court of a State with federal jurisdiction.

78. The Parliament may make laws conferring rights to proceed against the Commonwealth or a State in respect of matters within the limits of the judicial power. Proceedings against Commonwealth or State.

79. The federal jurisdiction of any court may be exercised by such number of judges as the Parliament prescribes. Number of judges.

80. The trial on indictment of any offence against any law of the Commonwealth shall be by jury, and every such trial shall be held in the State where the offence was committed, and if the offence was not committed within any State the trial shall be held at such place or places as the Parliament prescribes. Trial by jury.

CHAPTER IV.

FINANCE AND TRADE.

Chap. IV. Finance and Trade.

81. All revenues or moneys raised or received by the Executive Government of the Commonwealth shall form one Consolidated Revenue Fund, to be appropriated for the purposes of the Commonwealth in the manner and subject to the charges and liabilities imposed by this Constitution. Consolidated Revenue Fund.

82. The costs, charges, and expenses incident to the collection, management, and receipt of the Consolidated Revenue Fund shall form the first charge thereon; and the revenue of the Commonwealth shall in the first instance be applied to the payment of the expenditure of the Commonwealth. Expenditure charged thereon.

83. No money shall be drawn from the Treasury of the Commonwealth except under appropriation made by law. Money to be appropriated by law.

But until the expiration of one month after the first meeting of the Parliament the Governor-General in Council may draw from the Treasury and expend such moneys as may be necessary for the maintenance of any department transferred to the Commonwealth and for the holding of the first elections for the Parliament.

84. When any department of the public service of a State becomes transferred to the Commonwealth, all officers of the department shall become subject to the control of the Executive Government of the Commonwealth. Transfer of officers.

Any such officer who is not retained in the service of the Commonwealth shall, unless he is appointed to some other office of equal emolument in the public service of the State, be entitled to receive from the State any pension, gratuity, or other compensation, payable under the law of the State on the abolition of his office.

Any such officer who is retained in the service of the Commonwealth shall preserve all his existing and accruing rights, and shall be entitled to retire from office at the time, and on the pension or retiring allowance, which would be permitted by the law of the State if his service with the Commonwealth were a continuation of his service with the State. Such pension or retiring allowance shall be paid to him by the Commonwealth; but the State shall pay to the Commonwealth a part thereof, to be calculated on the proportion which his term of service with the State bears to his whole term of service, and for the purpose of the calculation his salary shall be taken to be that paid to him by the State at the time of the transfer.

Any officer who is, at the establishment of the Commonwealth, in the public service of a State, and who is, by consent of the Governor of the State with the advice of the Executive Council thereof, transferred to the public service of the Commonwealth, shall have the same rights as if he had been an officer of a department transferred to the Commonwealth and were retained in the service of the Commonwealth.

Transfer of property of State.

85. When any department of the public service of a State is transferred to the Commonwealth—

(i.) All property of the State of any kind, used exclusively in connexion with the department, shall become vested in the Commonwealth; but, in the case of the departments controlling customs and excise and bounties, for such time only as the Governor-General in Council may declare to be necessary:

(ii.) The Commonwealth may acquire any property of the State, of any kind used, but not exclusively used in connexion with the department; the value thereof shall, if no agreement can be made, be ascertained in, as nearly as may be, the manner in which the value of land, or of an interest in land, taken by the State for public purposes is ascertained under the law of the State in force at the establishment of the Commonwealth:

(iii.) The Commonwealth shall compensate the State for the value of any property passing to the Commonwealth under this section; if no agreement can be made as to the mode of compensation, it shall be determined under laws to be made by the Parliament:

(iv.) The Commonwealth shall, at the date of the transfer, assume the current obligations of the State in respect of the department transferred.

86. On the establishment of the Commonwealth, the collection and control of duties of customs and of excise, and the control of the payment of bounties, shall pass to the Executive Government of the Commonwealth.

87. During a period of ten years after the establishment of the Commonwealth and thereafter until the Parliament otherwise provides, of the net revenue of the Commonwealth from duties of customs and of excise not more than one-fourth shall be applied annually by the Commonwealth towards its expenditure.

The balance shall, in accordance with this Constitution, be paid to the several States, or applied towards the payment of interest on debts of the several States taken over by the Commonwealth.

88. Uniform duties of customs shall be imposed within two years after the establishment of the Commonwealth.

Uniform duties of customs.

89. Until the imposition of uniform duties of customs—

Payments to States before uniform duties.

(i.) The Commonwealth shall credit to each State the revenues collected therein by the Commonwealth.

(ii.) The Commonwealth shall debit to each State—

(a) The expenditure therein of the Commonwealth incurred solely for the maintenance or continuance, as at the time of transfer, of any department transferred from the State to the Commonwealth;

(b) The proportion of the State, according to the number of its people, in the other expenditure of the Commonwealth.

(iii.) The Commonwealth shall pay to each State month by month the balance (if any) in favour of the State.

90. On the imposition of uniform duties of customs the power of the Parliament to impose duties of customs and of excise, and to grant bounties on the production or export of goods, shall become exclusive.

Exclusive power over customs, excise, and bounties.

On the imposition of uniform duties of customs all laws of the several States imposing duties of customs or of excise, or offering bounties on the production or export of goods, shall cease to have effect, but any grant of or agreement for any such bounty lawfully made by or under the authority of the Government of any State shall be taken to be good if made before the thirtieth day of June, one thousand eight hundred and ninety-eight, and not otherwise.

91. Nothing in this Constitution prohibits a State from granting any aid to or bounty on mining for gold, silver, or other metals, nor from granting, with the consent of both Houses of the Parliament of the Commonwealth expressed by resolution, any aid to or bounty on the production or export of goods.

Exceptions as to bounties.

92. On the imposition of uniform duties of customs, trade, commerce, and intercourse among the States, whether by means of internal carriage or ocean navigation, shall be absolutely free.

Trade within the Commonwealth to be free.

But notwithstanding anything in this Constitution, goods imported before the imposition of uniform duties of customs into any State, or into any Colony which, whilst the goods remain therein, becomes a State, shall, on thence passing into another State within two years after the imposition of such duties, be liable to any duty chargeable on the importation of such goods into the Commonwealth, less any duty paid in respect of the goods on their importation.

Payment to States for five years after uniform tariffs.

93. During the first five years after the imposition of uniform duties of customs, and thereafter until the Parliament otherwise provides—

(i.) The duties of customs chargeable on goods imported into a State and afterwards passing into another State for consumption, and the duties of excise paid on goods produced or manufactured in a State and afterwards passing into another State for consumption, shall be taken to have been collected not in the former but in the latter State:

(ii.) Subject to the last subsection, the Commonwealth shall credit revenue, debit expenditure, and pay balances to the several States as prescribed for the period preceding the imposition of uniform duties of customs.

Distribution of surplus.

94. After five years from the imposition of uniform duties of customs, the Parliament may provide, on such basis as it deems fair, for the monthly payment to the several States of all surplus revenue of the Commonwealth.

Customs duties of Western Australia.

95. Notwithstanding anything in this Constitution, the Parliament of the State of Western Australia, if that State be an Original State, may, during the first five years after the imposition of uniform duties of customs, impose duties of customs on goods passing into that State and not originally imported from beyond the limits of the Commonwealth; and such duties shall be collected by the Commonwealth.

But any duty so imposed on any goods shall not exceed during the first of such years the duty chargeable on the goods under the law of Western Australia in force at the imposition of uniform duties, and shall not exceed during the second, third, fourth, and fifth of such years respectively, four-fifths, three-fifths, two-fifths, and one-fifth of such latter duty, and all duties imposed under this section shall cease at the expiration of the fifth year after the imposition of uniform duties.

If at any time during the five years the duty on any goods under this section is higher than the duty imposed by the Commonwealth on the importation of the like goods, then such higher duty shall be collected on the goods when imported into Western Australia from beyond the limits of the Commonwealth.

Financial assistance to States.

96. During a period of ten years after the establishment of the Commonwealth and thereafter until the Parliament otherwise provides, the Parliament may grant financial assistance to any State on such terms and conditions as the Parliament thinks fit.

Audit.

97. Until the Parliament otherwise provides, the laws in force in any Colony which has become or becomes a State with respect to the receipt of revenue and the expenditure of money on account of the Government of the Colony, and the review and audit of such receipt and expenditure, shall apply to the receipt of revenue and the expenditure of money on account of the Commonwealth in the State in the same manner as if the Commonwealth, or the Government or an officer of the Commonwealth, were mentioned whenever the Colony, or the Government or an officer of the Colony, is mentioned.

Trade and commerce includes navigation and State railways.

98. The power of the Parliament to make laws with respect to trade and commerce extends to navigation and shipping, and to railways the property of any State.

99. The Commonwealth shall not, by any law or regulation of trade, commerce, or revenue, give preference to one State or any part thereof over another State or any part thereof.

Commonwealth not to give preference.

100. The Commonwealth shall not, by any law or regulation of trade or commerce, abridge the right of a State or of the residents therein to the reasonable use of the waters of rivers for conservation or irrigation.

Nor abridge right to use water.

101. There shall be an Inter-State Commission, with such powers of adjudication and administration as the Parliament deems necessary for the execution and maintenance, within the Commonwealth, of the provisions of this Constitution relating to trade and commerce, and of all laws made thereunder.

Inter-State Commission.

102. The Parliament may by any law with respect to trade or commerce forbid, as to railways, any preference or discrimination by any State, or by any authority constituted under a State, if such preference or discrimination is undue and unreasonable, or unjust to any State; due regard being had to the financial responsibilities incurred by any State in connexion with the construction and maintenance of its railways. But no preference or discrimination shall, within the meaning of this section, be taken to be undue and unreasonable, or unjust to any State, unless so adjudged by the Inter-State Commission.

Parliament may forbid preferences by State.

103. The members of the Inter-State Commission—

Commissioners' appointment, tenure, and remuneration.

(i.) Shall be appointed by the Governor-General in Council:

(ii.) Shall hold office for seven years, but may be removed within that time by the Governor-General in Council, on an address from both Houses of the Parliament in the same session praying for such removal on the ground of proved misbehaviour or incapacity:

(iii.) Shall receive such remuneration as the Parliament may fix; but such remuneration shall not be diminished during their continuance in office.

104. Nothing in this Constitution shall render unlawful any rate for the carriage of goods upon a railway, the property of a State, if the rate is deemed by the Inter-State Commission to be necessary for the development of the territory of the State, and if the rate applies equally to goods within the State and to goods passing into the State from other States.

Saving of certain rates.

105. The Parliament may take over from the States their public debts ~~as existing at the establishment of the Commonwealth~~, or a proportion thereof according to the respective numbers of their people as shown by the latest statistics of the Commonwealth, and may convert, renew, or consolidate such debts, or any part thereof; and the States shall indemnify the Commonwealth in respect of the debts taken over, and thereafter the interest payable in respect of the debts shall be deducted and retained from the portions of the surplus revenue of the Commonwealth payable to the several States, or if such surplus is insufficient, or if there is no surplus, then the deficiency or the whole amount shall be paid by the several States.

Taking over public debts of States.
Altered by No. 3, 1910, s. 2.

Agreements with respect to State debts.
Inserted by No. 1, 1929, s. 2.

105A —(1.) The Commonwealth may make agreements with the States with respect to the public debts of the States, including—

(*a*) the taking over of such debts by the Commonwealth;

(*b*) the management of such debts;

(*c*) the payment of interest and the provision and management of sinking funds in respect of such debts;

(*d*) the consolidation, renewal, conversion, and redemption of such debts;

(*e*) the indemnification of the Commonwealth by the States in respect of debts taken over by the Commonwealth; and

(*f*) the borrowing of money by the States or by the Commonwealth, or by the Commonwealth for the States.

(2.) The Parliament may make laws for validating any such agreement made before the commencement of this section.

(3.) The Parliament may make laws for the carrying out by the parties thereto of any such agreement.

(4.) Any such agreement may be varied or rescinded by the parties thereto.

(5.) Every such agreement and any such variation thereof shall be binding upon the Commonwealth and the States parties thereto notwithstanding anything contained in this Constitution or the Constitution of the several States or in any law of the Parliament of the Commonwealth or of any State.

(6.) The powers conferred by this section shall not be construed as being limited in any way by the provision of section one hundred and five of this Constitution.

Chap. V.
The States.

CHAPTER V.

THE STATES.

Saving of Constitutions.

106. The Constitution of each State of the Commonwealth shall, subject to this Constitution, continue as at the establishment of the Commonwealth, or as at the admission or establishment of the State, as the case may be, until altered in accordance with the Constitution of the State.

Saving of Power of State Parliaments.

107. Every power of the Parliament of a Colony which has become or becomes a State, shall, unless it is by this Constitution exclusively vested in the Parliament of the Commonwealth or withdrawn from the Parliament of the State, continue as at the establishment of the Commonwealth, or as at the admission or establishment of the State, as the case may be.

108. Every law in force in a Colony which has become or becomes a State, and relating to any matter within the powers of the Parliament of the Commonwealth, shall, subject to this Constitution, continue in force in the State; and, until provision is made in that behalf by the Parliament of the Commonwealth, the Parliament of the State shall have such powers of alteration and of repeal in respect of any such law as the Parliament of the Colony had until the Colony became a State.

Saving of State laws.

109. When a law of a State is inconsistent with a law of the Commonwealth, the latter shall prevail, and the former shall, to the extent of the inconsistency, be invalid.

Inconsistency of laws.

110. The provisions of this Constitution relating to the Governor of a State extend and apply to the Governor for the time being of the State, or other chief executive officer or administrator of the government of the State.

Provisions referring to Governor.

111. The Parliament of a State may surrender any part of the State to the Commonwealth; and upon such surrender, and the acceptance thereof by the Commonwealth, such part of the State shall become subject to the exclusive jurisdiction of the Commonwealth.

States may surrender territory.

112. After uniform duties of customs have been imposed, a State may levy on imports or exports, or on goods passing into or out of the State, such charges as may be necessary for executing the inspection laws of the State; but the net produce of all charges so levied shall be for the use of the Commonwealth; and any such inspection laws may be annulled by the Parliament of the Commonwealth.

States may levy charges for inspection laws.

113. All fermented, distilled, or other intoxicating liquids passing into any State or remaining therein for use, consumption, sale, or storage, shall be subject to the laws of the State as if such liquids had been produced in the State.

Intoxicating liquids.

114. A State shall not, without the consent of the Parliament of the Commonwealth, raise or maintain any naval or military force, or impose any tax on property of any kind belonging to the Commonwealth, nor shall the Commonwealth impose any tax on property of any kind belonging to a State.

States may not raise forces. Taxation of property of Commonwealth or State.

115. A State shall not coin money, nor make anything but gold and silver coin a legal tender in payment of debts.

States not to coin money.

116. The Commonwealth shall not make any law for establishing any religion, or for imposing any religious observance, or for prohibiting the free exercise of any religion, and no religious test shall be required as a qualification for any office or public trust under the Commonwealth.

Commonwealth not to legislate in respect of religion.

117. A subject of the Queen, resident in any State, shall not be subject in any other State to any disability or discrimination which would not be equally applicable to him if he were a subject of the Queen resident in such other State.

Rights of residents in States.

118. Full faith and credit shall be given, throughout the Commonwealth to the laws, the public Acts and records, and the judicial proceedings of every State.

Recognition of laws, &c. of States.

119. The Commonwealth shall protect every State against invasion and, on the application of the Executive Government of the State, against domestic violence.

Protection of States from invasion and violence.

Custody of offenders against laws of the Commonwealth.

120. Every State shall make provision for the detention in its prisons of persons accused or convicted of offences against the laws of the Commonwealth, and for the punishment of persons convicted of such offences, and the Parliament of the Commonwealth may make laws to give effect to this provision.

Chap. VI.
New States.

CHAPTER VI.

NEW STATES.

New States may be admitted or established.

121. The Parliament may admit to the Commonwealth or establish new States, and may upon such admission or establishment make or impose such terms and conditions, including the extent of representation in either House of the Parliament, as it thinks fit.

Government of territories.

122. The Parliament may make laws for the government of any territory surrendered by any State to and accepted by the Commonwealth, or of any territory placed by the Queen under the authority of and accepted by the Commonwealth, or otherwise acquired by the Commonwealth, and may allow the representation of such territory in either House of the Parliament to the extent and on the terms which it thinks fit.

Alteration of limits of States.

123. The Parliament of the Commonwealth may, with the consent of the Parliament of a State, and the approval of the majority of the electors of the State voting upon the question, increase, diminish, or otherwise alter the limits of the State, upon such terms and conditions as may be agreed on, and may, with the like consent, make provision respecting the effect and operation of any increase or diminution or alteration of territory in relation to any State affected.

Formation of new States.

124. A new State may be formed by separation of territory from a State, but only with the consent of the Parliament thereof, and a new State may be formed by the union of two or more States or parts of States, but only with the consent of the Parliaments of the States affected.

Chap. VII.
Miscellaneous.

CHAPTER VII.

MISCELLANEOUS.

Seat of Government.

125. The seat of Government of the Commonwealth shall be determined by the Parliament, and shall be within territory which shall have been granted to or acquired by the Commonwealth, and shall be vested in and belong to the Commonwealth, and shall be in the State of New South Wales, and be distant not less than one hundred miles from Sydney.

Such territory shall contain an area of not less than one hundred square miles, and such portion thereof as shall consist of Crown lands shall be granted to the Commonwealth without any payment therefor.

The Parliament shall sit at Melbourne until it meet at the seat of Government.

126. The Queen may authorise the Governor-General to appoint any person, or any persons jointly or severally, to be his deputy or deputies[14] within any part of the Commonwealth, and in that capacity to exercise during the pleasure of the Governor-General such powers and functions of the Governor-General as he thinks fit to assign to such deputy or deputies, subject to any limitations expressed or directions given by the Queen; but the appointment of such deputy or deputies shall not affect the exercise by the Governor-General himself of any power or function.

Power to Her Majesty to authorise Governor-General to appoint deputies.

[15]* * * * * * * * * *

Section 127 repealed by No. 55, 1967, s. 3.

CHAPTER VIII.

ALTERATION OF THE CONSTITUTION.

Chap. VIII. Alteration of Constitution.

128. This Constitution shall not be altered except in the following manner:—

Mode of altering the Constitution.

The proposed law for the alteration thereof must be passed by an absolute majority of each House of the Parliament, and not less than two nor more than six months after its passage through both Houses the proposed law shall be submitted in each State **and Territory** to the electors qualified to vote for the election of members of the House of Representatives.

Paragraph altered by No. 84, 1977, s. 2.

But if either House passes any such proposed law by an absolute majority, and the other House rejects or fails to pass it, or passes it with any amendment to which the first-mentioned House will not agree, and if after an interval of three months the first-mentioned House in the same or the next session again passes the proposed law by an absolute majority with or without any amendment which has been made or agreed to by the other House, and such other House rejects or fails to pass it or passes it with any amendment to which the first-mentioned House will not agree, the Governor-General may submit the proposed law as last proposed by the first-mentioned House, and either with or without any amendments subsequently agreed to by both Houses, to the electors in each State **and Territory** qualified to vote for the election of the House of Representatives..

Paragraph altered by No. 84, 1977, s. 2.

When a proposed law is submitted to the electors the vote shall be taken in such manner as the Parliament prescribes. But until the qualification of electors of members of the House of Representatives becomes uniform throughout the Commonwealth, only one-half the electors voting for and against the proposed law shall be counted in any State in which adult suffrage prevails.

And if in a majority of the States a majority of the electors voting approve the proposed law, and if a majority of all the electors voting also approve the proposed law, it shall be presented to the Governor-General for the Queen's assent.

No alteration diminishing the proportionate representation of any State in either House of the Parliament, or the minimum number of representatives of a State in the House of Representatives, or increasing, diminishing, or otherwise altering the limits of the State, or in any manner affecting the provisions of the Constitution in relation thereto, shall become law unless the majority of the electors voting in that State approve the proposed law.

Paragraph added by No. 84, 1977, s. 2.

In this section, "Territory" means any territory referred to in section one hundred and twenty-two of this Constitution in respect of which there is in force a law allowing its representation in the House of Representatives.

SCHEDULE.

OATH.

I, *A.B.*, do swear that I will be faithful and bear true allegiance to Her Majesty Queen Victoria, Her heirs and successors according to law. SO HELP ME GOD!

AFFIRMATION.

I, *A.B.*, do solemnly and sincerely affirm and declare that I will be faithful and bear true allegiance to Her Majesty Queen Victoria, Her heirs and successors according to law.

(NOTE.—*The name of the King or Queen of the United Kingdom of Great Britain and Ireland for the time being is to be substituted from time to time.*)

NOTES

1. The Constitution as printed above contains all the alterations of the Constitution made up to 31 October 1986. Particulars of the Acts by which the Constitution was altered are as follows:

Act	Number and year	Date of Assent
Constitution Alteration (Senate Elections) 1906	1, 1907	3 Apr 1907
Constitution Alteration (State Debts) 1909	3, 1910	6 Aug 1910
Constitution Alteration (State Debts) 1928	1, 1929	13 Feb 1929
Constitution Alteration (Social Services) 1946	81, 1946	19 Dec 1946
Constitution Alteration (Aboriginals) 1967	55, 1967	10 Aug 1967
Constitution Alteration (Senate Casual Vacancies) 1977	82, 1977	29 July 1977
Constitution Alteration (Retirement of Judges) 1977	83, 1977	29 July 1977
Constitution Alteration (Referendums) 1977	84, 1977	29 July 1977

2. Covering Clause 3—The Proclamation under covering clause 3 was made on 17 September 1900 and is published in *Gazette* 1901, p. 1 and *infra* p. 41.

3. Covering Clause 5—*Cf.* the *Statute of Westminster Adoption Act 1942, infra* p. 47.

4. Covering Clause 7—The following Acts have repealed Acts passed by the Federal Council of Australasia:

   Defence Act 1903 (No. 20, 1903), s. 6.
   Pearl Fisheries Act 1952 (No. 8, 1952), s. 3. (*Pearl Fisheries Act 1952* repealed by *Continental Shelf (Living Natural Resources) Act 1968*, s. 3.)
   Service and Execution of Process Act 1901 (No. 11, 1901), s. 2. (S. 2 subsequently repealed by *Service and Execution of Process Act 1963*, s. 3.)

5. S. 7—The number of senators for each State was increased to 12 by the *Representation Act 1983*, s. 3.

6. S. 9—The following State Acts have been passed in pursuance of the powers conferred by s. 9:

State	Number	Short title	How affected
New South Wales	No. 73, 1900	Federal Elections Act, 1900	Ss. 2, 3, 4, 5 and 6 and the Schedule repealed by No. 9, 1903; wholly repealed by No. 41, 1912
	No. 9, 1903	Senators' Elections Act, 1903	Amended by No. 75, 1912 and No. 112, 1984
	No. 75, 1912	Senators' Elections (Amendment) Act, 1912	*(Still in force)*
	No. 112, 1984	Senators' Elections (Amendment) Act, 1984	*(Still in force)*
Victoria	No. 1715	*Federal Elections Act* 1900	Repealed by No. 1860

NOTES—*continued*

State	Number	Short title	How affected
	No. 1860	*Senate Elections (Times and Places) Act 1903*	Repealed by No. 2723
	No. 2399	*Senate Elections (Times and Places) Act* 1912	Repealed by No. 2723
	No. 2399	*Senate Elections (Times and Places) Act* 1912	Repealed by No. 2723
	No. 2723	*Senate Elections (Times and Places) Act* 1915	Repealed by No. 3769
	No. 3769	*Senate Elections (Times and Places) Act* 1928	Repealed by No. 6365
	No 6365	*Senate Elections Act* 1958	Amended by No. 10108
	No. 10108	*Senate Elections (Amendment) Act,* 1984	(*Still in force*)
Queensland	64 Vic. No. 25	*The Parliament of the Commonwealth Elections Act and The Elections Acts* 1885 *to* 1898 *Amendment Act of* 1900	Operation exhausted
	3 Edw. VII. No. 6	*The Election of Senators Act of* 1903	Repealed by 9 Eliz. II. No. 20
	9 Eliz. II. No. 20	*The Senate Elections Act of* 1960	Amended by No. 79, 1984
	No. 79, 1984	*Senate Elections Act Amendment Act* 1984	(*Still in force*)
South Australia	No. 834	The Election of Senators Act, 1903	Amended by No. 4, 1978, No. 37, 1981 and No. 80, 1984
	No. 4, 1978	The Election of Senators Act Amendment Act, 1978	(*Still in force*)
	No. 37, 1981	Election of Senators Act Amendment Act, 1981	(*Still in force*)
	No. 80, 1984	Election of Senators Act Amendment Act, 1984	(*Still in force*)
Western Australia	No. 11, 1903	*Election of Senators Act,* 1903	Amended by No. 27, 1912 and No. 86, 1984
	No. 27, 1912	*Election of Senators Amendment Act,* 1912	(*Still in force*)
	No. 86, 1984	Election of Senators Amendment Act, 1984	(*Still in force*)
Tasmania	64 Vic. No. 59	The Federal Elections Act, 1900	Repealed by 26 Geo. V. No. 3
	3 Edw. VII. No. 5	The Election of Senators Act, 1903	Repealed by 26 Geo. V. No. 3
	26 Geo. V. No. 3	*Senate Elections Act* 1935	Amended by No. 63, 1984
	No. 63, 1984	*Senate Elections Amendment Act* 1984	(*Still in force*)

NOTES—*continued*

7. S. 14—For the provisions applicable upon the increase in the number of senators to 12 made by the *Representation Act* 1983, *see* s. 3 of that Act.

8. Section 15, before its substitution by the *Constitution Alteration (Senate Casual Vacancies) 1977,* provided as follows:

> "15. If the place of a senator becomes vacant before the expiration of his term of service, the Houses of Parliament of the State for which he was chosen shall, sitting and voting together, choose a person to hold the place until the expiration of the term, or until the election of a successor as hereinafter provided, whichever first happens. But if the Houses of Parliament of the State are not in session at the time when the vacancy is notified, the Governor of the State, with the advice of the Executive Council thereof, may appoint a person to hold the place until the expiration of fourteen days after the beginning of the next session of the Parliament of the State, or until the election of a successor, whichever first happens.
>
> "At the next general election of members of the House of Representatives, or at the next election of senators for the State, whichever first happens, a successor shall, if the term has not then expired, be chosen to hold the place from the date of his election until the expiration of the term.
>
> "The name of any senator so chosen or appointed shall be certified by the Governor of the State to the Governor-General."

9. S. 15—The proposed law to alter the Constitution entitled "*Constitution Alteration (Simultaneous Elections) 1977*" was submitted to the electors in each State of the Commonwealth on 21 May 1977: it was not approved by a majority of all the electors voting in a majority of the States. *See Gazette* 1977, No. S100, p. 1.

10. S. 29—The following State Acts were passed in pursuance of the powers conferred by s. 29, but ceased to be in force upon the enactment of the *Commonwealth Electoral Act 1902*:

State	Number	Short title
New South Wales	No. 73, 1900	Federal Elections Act, 1900
Victoria	No. 1667	*Federal House of Representatives Victorian Electorates Act* 1900
Queensland	64 Vic. No. 25	The Parliament of the Commonwealth Elections Act and The Elections Acts 1885 to 1898 Amendment Act of 1900
Western Australia	64 Vic. No. 6	Federal House of Representatives Western Australian Electorates Act, 1900

NOTES—*continued*

11. S. 51—The following Imperial Acts extended the legislative powers of the Parliament:

Whaling Industry (Regulations) Act, 1934, s. 15
Geneva Convention Act, 1937, s. 2
Emergency Powers (Defence) Act, 1939, s. 5
Army and Air Force (Annual) Act, 1940, s. 3.

12. S. 51 (xxxvii.)—The following Acts have been passed by the Parliaments of the States to refer matters to the Parliament under section 51 (xxxvii.):

State	Number	Short title	How affected
New South Wales	No. 65, 1915	Commonwealth Powers (War) Act, 1915	Expired 9 Jan 1921; *see* s. 5
	No. 33, 1942	Commonwealth Powers Act, 1942	Expired; *see* s. 4
	No. 18, 1943	Commonwealth Powers Act, 1943	Expired; *see* s. 4
	No. 48, 1983	Commonwealth Powers (Meat Inspection) Act, 1983	*(Still in force)*
Victoria	No. 3108	*Commonwealth Powers (Air Navigation)* Act 1920	Repealed by No. 4502
	No. 3658	*Commonwealth Arrangements Act 1928 (Part III)*	Repealed by No. 4502
	No 4009	*Debt Conversion Agreement Act* 1931 (No. 2)	*(Still in force)*
	No. 4950	*Commonwealth Powers Act* 1943	Not proclaimed to come into operation and cannot now be so proclaimed
Queensland	12 Geo. V. No. 30	*The Commonwealth Powers (Air Navigation) Act of* 1921	Repealed by 1 Geo. VI. No. 8
	22 Geo. V. No. 30	*The Commonwealth Legislative Power Act, 1931*	Repealed by No. 46, 1983
	7 Geo. VI. No. 19	*Commonwealth Powers Act* 1943	Expired; *see* s. 4
	14 Geo. VI. No. 2	*The Commonwealth Powers (Air Transport) Act of* 1950	*(Still in force)*
South Australia	No. 1469, 1921	Commonwealth Powers (Air Navigation) Act, 1921	Repealed by No. 2352, 1937
	No. 2061, 1931	Commonwealth Legislative Power Act, 1931	*(Still in force)*
	No. 3, 1943	Commonwealth Powers Act 1943	Expired; *see* s. 5
Western Australia	No. 4, 1943	*Commonwealth Powers Act,* 1943	Repealed by No. 58, 1965
	No. 57, 1945	*Commonwealth Powers Act,* 1945	Repealed by No. 58, 1965
	No. 30, 1947	*Commonwealth Powers Act,* 1943, *Amendment Act,* 1947	Repealed by No. 58, 1965
	No. 31, 1947	*Commonwealth Powers Act,* 1945, *Amendment Act,* 1947	Repealed by No. 58, 1965
	No. 73, 1947	*Commonwealth Powers Act,* 1945, *Amendment Act, (No.* 2), 1947	Repealed by No. 58, 1965

NOTES—*continued*

State	Number	Short title	How affected
	No. 81, 1947	*Commonwealth Powers Act, 1945–1947, Amendment (Continuance) Act,* 1947	Repealed by No. 58, 1965
Tasmania	11 Geo. V. No. 42	*Commonwealth Powers (Air Navigation) Act,* 1920	Repealed by 1 Geo. VI. No. 14
	No. 46, 1952	*Commonwealth Powers (Air Transport) Act* 1952	(*Still in force*)
	No. 62, 1966	*Commonwealth Powers (Trade Practices) Act* 1966	Expired; *see* s. 2

13. s. 74—*See Privy Council (Limitation of Appeals) Act 1968, Privy Council (Appeals from the High Court) Act 1975* and Kirmani v Captain Cook Cruises Pty Ltd (No. 2); Ex parte Attorney-General (QLD) (1985) 58 ALR 108.

14. S. 126—*See* clause IV of the Letters Patent relating to the Office of Governor-General, published in *Gazette* 1984, S334, pp. 3 and 4 and *infra* p. 44.

15. Section 127, before its repeal by the *Constitution Alteration (Aboriginals) 1967*, provided as follows:

    "127. In reckoning the numbers of the people of the Commonwealth, or of a State or other part of the Commonwealth, aboriginal natives shall not be counted."

Chapter Three

Territories of Australia

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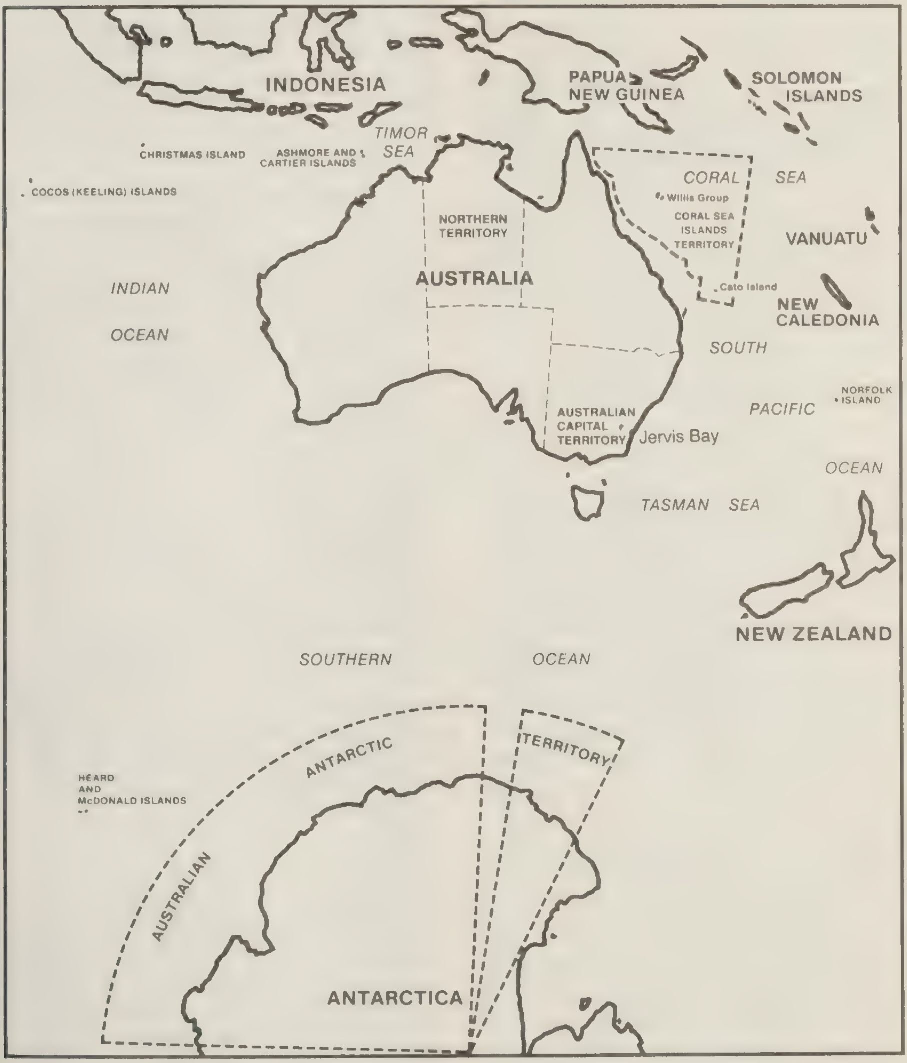
The external territories of Australia are: Norfolk Island; the Territory of Heard and McDonald Islands; the Australian Antarctic Territory; the Territory of Cocos (Keeling) Islands; the Territory of Christmas Island; the Coral Sea Islands Territory and the Territory of Ashmore and Cartier Islands.


INDONESIA
PAPUA NEW GUINEA
SOLOMON ISLANDS
TIMOR SEA
CHRISTMAS ISLAND
ASHMORE AND CARTIER ISLANDS
COCOS (KEELING) ISLANDS
CORAL SEA
SEA
Willis Group
CORAL SEA ISLANDS TERRITORY
VANUATU
NORTHERN TERRITORY
AUSTRALIA
Cato Island
NEW CALEDONIA
INDIAN
OCEAN
SOUTH
PACIFIC
OCEAN
NORFOLK ISLAND
AUSTRALIAN CAPITAL TERRITORY
Jervis Bay
TASMAN SEA
NEW ZEALAND
SOUTHERN
OCEAN
HEARD AND McDONALD ISLANDS
AUSTRALIAN ANTARCTIC TERRITORY
ANTARCTICA

Source: Overseas Information Branch, Department of Foreign Affairs and Trade.

In previous editions of *Year Book Australia*, information on the internal territories of Australia — the Northern Territory, the Australian Capital Territory (ACT) and the Jervis Bay Territory — were included in this chapter. The Northern Territory and the Australian Capital Territory are now self-governing territories, under the *Northern Territory (Self-Government) Act 1977;* and the *Australian Capital Territory (Self-Government) Act 1988*. In keeping with the practice in *Year Book Australia* of covering information on States under chapter headings, information on the first two Territories is no longer included in this separate chapter. Detailed statistics and descriptive matter can be found in the following two ABS publications, *Northern Territory Statistical Summary* (1306.7) and the *Australian Capital Territory Statistical Summary* (1307.8), and in the annual reports and other official publications of the administrations of the two territories.

JERVIS BAY TERRITORY

The Jervis Bay Territory comprises 70 square kilometres on the southern shore of Jervis Bay, about 195 kilometres south of Sydney. The Territory was accepted by the Commonwealth in 1915 under the *Jervis Bay Territory Acceptance Act 1915*. The acceptance was in accordance with the *Seat of Government Acceptance Act 1909* which stated that the seat of government (the Australian Capital Territory) should have access to the sea. Following ACT self-government in 1988, the Jervis Bay Territory remained a separate Commonwealth Territory and is administered by the Department of the Arts, Sport, the Environment and Territories.

Two-thirds of the Territory is nature reserve with the balance consisting of land used for Defence purposes, Aboriginal land at Wreck Bay, a few private leases and other Commonwealth land. The population of the Territory is relatively constant at about 800. Residents of the Territory vote in the federal electorate of Fraser for representation in the House of Representatives and the Senate. However, Territory residents are excluded from representation in the ACT Legislative Assembly.

Administration

The laws of the ACT apply so far as they are applicable by virtue of sub-section 4A(1) of the *Jervis Bay Territory Acceptance Act 1915*, and the ACT Supreme Court has jurisdiction in the Territory. On 17 December 1990, the *Jervis Bay Territory Administration Ordinance 1990* was made by the Governor-General (who has the power to make ordinances specifically for the Territory). The Ordinance makes provision, among other things, for the Minister for the Arts, Sport, the Environment and Territories to make regulations under an applied ACT act.

The Department of the Arts, Sport, the Environment and Territories (DASET) provides a full range of municipal and territorial services in the Territory. The majority of these are provided by ACT government agencies under the terms of Memoranda of Understanding between the relevant agencies and DASET. The total expenditure in 1990–91 on managing the Territory and providing municipal and Territorial services was $5.1 million.

Land Management

The nature reserve, along with some adjacent Commonwealth lands and the waters of the Territory, are managed by the ACT Parks and Conservation Service on a contract basis — expenditure in 1990–91 amounted to $2.1 million. Most of the lands and all of the waters of the Territory will be declared a national park in early 1992 under the *National Parks and Wildlife Conservation Act 1975*. The Australian National Parks and Wildlife Service will take over management of the park on 1 July 1992.

Tourism

Approximately 700,000 people visit the Territory each year. The Territory has a unique natural environment, including a richly diverse natural vegetative cover, relatively undisturbed plant communities supporting varied natural fauna, attractive recreational areas and pristine marine waters. The most common activities undertaken in the Territory include camping, bush walking, diving and boating.

NORFOLK ISLAND

Norfolk Island, discovered by Captain Cook in 1774, is situated approximately in latitude 29°02′S, longitude 167°57′E, 1,676 kilometres east of Sydney. Its total area is approximately 3,455 hectares, the island being about 8 kilometres long and 5 kilometres wide. The coastline which is 32 kilometres long, consists of almost inaccessible cliffs rising from the waters edge, except at Kingston in the south and the landing place at Cascade on the northern side. The climate is equable, the average daily maximum temperature varying between 16°C and 28°C, and the average annual rainfall is 1,350 millimetres. The resident population is about 2,000.

The island served as a penal station from 1788 to 1814 and from 1825 to 1855. In 1856, 194 descendants of the *Bounty* mutineers were transferred from Pitcairn Island.

Administration

In 1856, the island was created a distinct and separate settlement under the jurisdiction of the Governor of New South Wales. In 1897 it was made a dependency under the Governor of that colony, and finally, by the passage of the *Norfolk Island Act 1913*, became a Territory of Australia.

The *Norfolk Island Act 1979*, established a form of government involving the island's own elected representatives under which the necessary revenue could be raised by its own system of law. In broad terms, the Act equips Norfolk Island with responsible legislative and executive government to enable it to run its own affairs to the greatest practicable extent. Wide powers are exercised by the Norfolk Island Legislative Assembly and by an Executive Council, comprising the executive members of the Legislative Assembly who have ministerial-type responsibilities. The Act preserves the Commonwealth's responsibility for Norfolk Island as a Territory under its authority, with the Minister for the Arts, Sport, the Environment and Territories as the responsible Minister. Since 1979, various additional powers have been transferred to the responsibility of the Norfolk Island Government and further progress towards self-government was made in 1989 with the transfer of a significant number of new powers.

The Office of the Administrator is financed from Commonwealth expenditure which amounted to approximately $486,700 in 1990–91. An amount of $334,000 was provided by the Commonwealth during the year for the restoration and maintenance of historic structures and a further $100,000 towards the cost of a water assurance scheme.

Tourism

The island's major economic activity is tourism. Regular air services to the island are available for those who seek a quiet holiday in surroundings of beauty and historic interest. There were 28,712 tourist arrivals in 1990–91.

Primary industries

The soil on the island is particularly fertile, the climate equable and the rainfall fairly evenly distributed except for a pronounced dry period in November. This enables a wide range of temperate and semi-tropical products to be cultivated. However, the island's comparative isolation presents trading difficulties and there is only very limited production of export crops.

Fish are in abundance and in the past a number of ventures have been formed to exploit this resource, but they have been short-lived, mainly because of the lack of a sheltered harbour. A forestry program is being carried out to increase the resources of Norfolk Island Pine and to introduce suitable types of eucalypts.

Primary production is not fully adequate for local needs and foodstuffs are imported from New Zealand and Australia.

Employment

A large proportion of the population derives its income from various aspects of the tourist industry. Very few people rely entirely on agricultural pursuits for their income.

Finance

Until 1979, Norfolk Island revenue was supplemented by annual grants from the Commonwealth Government. Under present constitutional arrangements, the cost of maintaining the island, other than the Administrator and staff, is met as far as practicable from island sources.

NORFOLK ISLAND: REVENUE AND EXPENDITURE
($'000)

	1984–85	*1985–86*	*1986–87*	*1987–88*	*1988–89*	*1989–90*
REVENUE						
Customs duty	1,373	1,833	2,008	1,902	1,881	2,005
Liquor service	439	578	614	611	632	658
Company fees	94	84	92	108	80	79
Postal operations	801	744	114	272	20	20
Vehicle registration and licence fees	117	124	128	136	132	181
Departure fees(a)	—	—	—	272	278	226
Public works levy(a)	—	—	—	249	263	261
Fuel levy(a)	—	—	—	142	167	164
Telecommunications(a)	—	—	—	185	185	203
Electricity service(a)	—	—	—	115	190	215
All other(b)	1,624	1,777	2,173	688	984	1,096
Interest on investments(a)	—	—	—	336	437	544
Total revenue	**4,448**	**5,140**	**5,129**	**5,016**	**5,249**	**5,652**
EXPENDITURE						
Administration	1,669	1,770	1,245	1,343	1,193	1,259
Education services	627	927	755	880	865	942
Health and welfare services	514	552	627	611	619	740
Repairs and maintenance	571	706	830	777	774	781
Capital works and services	265	768	1,682	638	507	588
Miscellaneous services	312	431	501	509	996	1,133
Legislative Assembly	230	234	210	182	167	207
Total expenditure	**4,188**	**5,388**	**5,850**	**4,940**	**5,121**	**5,650**

(a) For the years 1986-87 and prior, these amounts had been included in the total of 'All other revenue'. (b) 'All other revenue' is made up of sundry classifications none of which individually exceeds $100,000.

Source: The Department of the Arts, Sport, the Environment and Territories.

Trade

Imports to Norfolk Island since World War II have risen in value from $65,000 in 1945–46 to over $20 million in 1989–90. The major proportion came from Australia and New Zealand. Exports in 1989–90 amounted to $2.6 million, with Australia and New Zealand as the principal markets.

Transport

A shipping company operates cargo services to Norfolk Island at approximately five weekly intervals, linking the island with Australia and New Zealand.

An air passenger and freight service operates a number of times a week between Norfolk Island and Sydney, Brisbane and Auckland.

Communication

There are approximately 80 kilometres of motor roads on the island. A substantial section of the population possesses motor cars.

The island has an automatic telephone exchange and international telephone connection with Australia, New Zealand and Fiji by way of the ANZCAN submarine cable system. A local broadcasting service is operated by the Administration. The Administration also provides a television service. A central ground station receives ABC and SBS services via the AUSSAT satellite which are then re-broadcast throughout the island.

Education

Education is provided by a school conducted for the Administration by the New South Wales Department of Education. It conforms to the Australian standard of public education, ranging from Kindergarten to the School Certificate (Year 10) level. The number of students enrolled at 30 June 1991 was 320.

Some bursaries, subject to a means test, are available for pupils who wish to attend a mainland school either to continue their studies beyond the School Certificate level or to undertake high school courses not available on the island. A limited number of trainee scholarships are available for pupils who have left school and wish to undertake apprenticeships or similar training away from the island.

Judiciary

The judicial system of Norfolk Island consists of a Supreme Court and a Court of Petty Sessions. The Supreme Court is the highest judicial authority in the Territory and is a superior court of record with original criminal and civil jurisdiction. The jurisdiction of the court is exercised by one judge sitting in court or, to the extent provided by or under ordinance, sitting in chambers. The jurisdiction of the Court of Petty Sessions is exercised by the Chief Magistrate or any three Magistrates.

TERRITORY OF HEARD ISLAND AND McDONALD ISLANDS

Heard Island, about 43 kilometres long and 20 kilometres wide, is the largest of a group of southern Indian Ocean islands about 4,100 kilometres south-west of Fremantle.

The islands, now known as the Territory of Heard Island and the McDonald Islands, were transferred from the United Kingdom to Australia as from 26 December 1947. The legal regime of the Territory is provided for in the *Heard Island and McDonald Islands Act 1953*. Under this Act, the laws in force in the Territory are those of the Australian Capital Territory and the criminal laws of the Jervis Bay Territory, so far as they are applicable and not inconsistent with an ordinance made under the Act. The Act also provides that Commonwealth laws apply when expressed to do so and that ordinances may be made for the Territory.

In December 1947, the first of the Australian National Antarctic Research Expeditions (ANARE) set up a scientific station on Heard Island. Various scientific and meteorological investigations were conducted until the station was closed in March 1955 following the establishment of Mawson station on the Antarctic mainland. Australian expeditions have since visited the island from time to time. From 1985 until March 1988, a major new research program was undertaken on the island, mainly involving investigation of the Island's wildlife as part of international studies of the Southern Ocean ecosystem. This research is being continued with subsequent Australian expeditions to the island in June 1990 and throughout 1992.

The McDonald Islands are 43 kilometres to the west of Heard Island. They are small, rocky and precipitous. The first known landing on McDonald Island, the largest of the group of that name, was by ANARE expeditioners on 27 January 1971.

Heard Island is widely regarded as one of the last Antarctic habitats remaining free of introduced organisms and is thus of significance as a benchmark for ecological studies. In January 1988, introduction of the Environment Protection and Management Ordinance under the *Heard Island and McDonald Islands Act 1953* put in place the framework for sustained conservation of the islands. In 1990 the Territory was nominated by Australia for consideration by the World Heritage Committee for World Heritage listing.

AUSTRALIAN ANTARCTIC TERRITORY

An Imperial Order in Council of 7 February 1933 placed under Australian authority all the territories and islands, other than the French Terre Adelie, south of 60°S latitude and between 45°E and 160°E longitude, a total land area of six million square kilometres, or the size of Australia less Queensland. The Order came into force with a proclamation issued by the Governor-General on 24 August 1936, after the passage of the *Australian Antarctic Territory Acceptance Act 1933*. The boundaries of Terre Adelie were definitively fixed by a French decree of 1 April 1938 as the islands and territories south of 60°S latitude and between 136°E and 142°E longitude.

The legal regime of the Territory is provided for in the *Australian Antarctic Territory Act 1954*. Under this Act, the laws in force in the Territory are those of the Australian Capital Territory and the criminal laws of the Jervis Bay Territory, so far as they are applicable and not inconsistent with any ordinance made under the Act. The Act also provides that Commonwealth laws apply when expressed to do so and that Ordinances may be made for the Territory.

On 13 February 1954, ANARE established the first permanent Australian Antarctic station on MacRobertson Land at latitude 67°36′S and longitude 62°53′E. The station was named Mawson in honour of the Australian Antarctic pioneer Sir Douglas Mawson. A second Australian continental station was established in 1957 at latitude 68°35′S and longitude 77°58′E and was named Davis to commemorate Captain John King Davis, second-in-command of two of Mawson's expeditions and master of several famous Antarctic ships. On 4 February 1959, Australia accepted from the United States Government custody of Wilkes station which had been established two years earlier at latitude 66°15′S and longitude 110°32′E. Wilkes was subject to inundation by snow and ice and was closed on 19 February 1969 when activities were transferred to Casey, a new station built nearby. Casey was named in honour of Lord Casey, former Governor-General of Australia, in recognition of his long association with Australia's Antarctic effort.

Australian science in Antarctica deals mainly with the Antarctic ecosystem, the region's natural phenomena, and atmospheric and space studies. Disciplines include marine science, land based biology, meteorology, cosmic ray physics, upper atmosphere physics, glaciology and earth sciences.

In addition to its three permanent continental stations (a fourth permanent station is on the Tasmanian territory of Macquarie Island), Australia conducts its Antarctic science from summer bases at Cape Denison (in the eastern sector of Australian territory), the Prince Charles Mountains, the Larsemann Hills and the Bunger Hills, as well as temporary field camps in such places as Enderby Land, Scullin Monolith, Amery Ice Shelf and Law Dome.

In 1981–82, a program for redeveloping Australia's Antarctic stations began. It is now well advanced and the first of the new stations to be completed — Casey — was occupied in 1989.

Specific legislation has been enacted which puts into effect Australia's obligations under various international agreements, many of which relate to environment protection. Adoption of the Protocol on Environmental Protection to the Antarctic Treaty in October 1991 enabled a comprehensive environment protection regime for all Antarctica to be put in place. Under the protocol, Antarctica has been declared a natural reserve, devoted to peace and science.

The Protocol bans mining and provides strict rules for modifying the ban. Agreement of all parties is needed for any change. After 50 years the ban may only be lifted if at least three-quarters of the current Consultative Parties (26 nations including Australia) agree, a legal regime for controlling mining is in force, and sovereignty interests of all parties are safeguarded. Australia legislated in 1991 to ban all mining in Australian Antarctic Territory and on the adjacent continental shelf. The legislation also prohibits Australian nationals from mining elsewhere in Antarctica.

See also the chapter on International Relations.

COCOS (KEELING) ISLANDS

The Territory of the Cocos (Keeling) Islands comprises a group of 27 small coral islands in two separate atolls in the Indian Ocean, 2,768 kilometres north-west of Perth.

The Territory's administrative community, airport and animal quarantine station are located on West Island, the largest island, about 10 kilometres long. The Cocos Malay community lives on Home Island. The main atoll is low-lying, flat, thickly covered by coconut palms and surrounds a lagoon which has an anchorage in the northern part but which is extremely difficult for navigation.

The climate is equable and pleasant, usually being under the influence of the south-east trade winds for about nine months of the year. However, the winds vary at times and meteorological reports from the Territory are particularly valuable for those engaged in forecasting for the eastern Indian Ocean. The temperature varies between 21°C and 32°C, and the average yearly rainfall is 1,998 millimetres. There are occasional violent storms.

History and administration

The islands were discovered in 1609 by Captain William Keeling of the East India Company, but were uninhabited until Alexander Hare and John Clunies–Ross established small settlements at different points on the main atoll in 1826 and 1827 respectively. Clunies–Ross secured sole possession in 1831 and the islands were declared part of the British Dominions in 1857. In 1878, responsibility for the supervision of the islands was transferred to the Government of Ceylon and eight years later, to the Government of the Straits Settlements.

In 1903, the islands were incorporated in the Settlement of Singapore but were attached again to Ceylon during World War II while Singapore was under Japanese occupation.

By mutual agreement between the British and Australian Governments and confirmed by complementary legislation, the islands became an Australian territory in 1955. The Australian Government purchased the Clunies–Ross interests in the Territory in 1978, except for the family home and grounds.

The *Cocos (Keeling) Islands Act 1955* is the basis of the Territory's administrative, legislative and judicial systems.

An Administrator, appointed by the Governor-General and responsible to the Minister for the Arts, Sport, the Environment and Territories, is the senior Government representative in the Territory.

On 25 July 1979, the Cocos (Keeling) Islands Council, elected by members of the Home Island community, was established. The Council has responsibility for a range of functions in the Home Island village area, advises the Administrator on local affairs and is also empowered to make representations on ordinances proposed for the Territory.

The Cocos Islands Cooperative Society Limited, also established in 1979, conducts the business enterprises of the Cocos people. The Cooperative undertakes building maintenance and construction, stevedoring and lighterage services, retailing and provision of accommodation and catering services.

On 6 April 1984, the Cocos Malay community, in an Act of Self Determination which took the form of a referendum observed by the United Nations, chose to integrate with Australia.

The 1991 population count of the Cocos (Keeling) Islands was 647.

Transport and communications

There is an airport of international standard at West Island controlled by the Administrator under licence from the Department of Transport and Communications. The Department of the Arts, Sport, the Environment and Territories operates a weekly air charter service which alternates between the routes Perth–Christmas Island–Cocos (Keeling) Islands–Perth and Perth–Cocos (Keeling) Islands–Christmas Island–Perth. A shipping service operates to the Territory every 6–8 weeks. The Administration operates and maintains, on behalf of the Overseas Telecommunications Commission (Australia), a satellite communications facility which provides telephone, facsimile and telex services to the Australian mainland and beyond. There are local postal and telephone services, and a non-commercial broadcasting station.

CHRISTMAS ISLAND

Christmas Island is an isolated peak situated in the Indian Ocean, latitude 10°25′S, longitude 105°40′E, 2,623 kilometres north-west of Perth. Christmas Island covers an area of about 135 square kilometres. It consists of a central plateau varying in height from 250 metres above sea level at the eastern side of the island to 150 metres on the western side. Several prominent rises in the plateau reach 360 metres above sea level. The plateau descends to the sea in a series of steep slopes alternating with terraces. Sea cliffs over 20 metres high run along a considerable portion of the coastline except in a few places, the chief of which is Flying Fish Cove where the principal settlement is located and which is the only anchorage.

The climate is tropical, with prevailing winds coming from the south-east to east-south-east from May to December, and occasionally shifting round to between north and west from December to April (the wet season). The average yearly rainfall is 2,673 mm with a marked summer incidence. The porous nature of the ground prevents the formation of pools of water, but there are several good springs which provide an adequate supply of fresh water for the population and for the mining operation. The mean average temperature is about 28°C and does not vary greatly throughout the year.

The 1991 population count of the island was 1,275. The majority are Chinese with the remainder being mostly Malays and Europeans. There is no indigenous population.

History and administration

Summarised particulars of the history of Christmas Island up to its administration by the United Kingdom as a separate Crown Colony (from 1 January 1958, pending transfer to Australia) are given in *Year Book Australia 1965* and in earlier issues. On 1 October 1958, the island was accepted by Australia under the *Christmas Island Act 1958*. The Territory is administered by an Administrator appointed by the Governor-General. Responsibility for the administration and government of the Territory rests with the Minister for the Arts, Sport, the Environment and Territories. The Administrator reports to the Minister and is subject to his direction. The laws which were in force on the island at 30 September 1958 were continued as the laws of the Territory after its transfer to Australia.

The *Migration Act 1958* was extended to the Territory from 23 January 1981, enabling all island residents to become Australian residents and to acquire Australian citizenship. A number of measures have since been taken to extend the same benefits and responsibilities to island residents as apply on the Australian mainland so that the islanders will be in no better or worse a position than their mainland counterparts.

The *Services Corporation Ordinance 1984* was made on 26 October 1984, creating the Christmas Island Services Corporation (CISC) with power to provide many local and community services on the island.

The *Taxation Laws Amendment Act 1985* received Royal assent on 30 May 1985. The Act provided for the introduction of full company tax and the Medicare levy, as well as the phased introduction of personal income tax on Christmas Island over a four year period from 1 July 1985.

The *Christmas Island Assembly Ordinance 1985* and the Christmas Island Assembly (Election) Regulations permitted Christmas Island residents to elect their first Assembly on 28 September 1985. Nine members were elected for a one-year term under a voting system similar to that used in electing Senators of the Commonwealth of Australia. The Christmas Island Assembly has responsibility for directing the CISC in the performance of its functions.

Economy

The economy of the Territory has historically been based almost entirely on the mining and extraction of phosphate. In November 1985, responsibility for the mining operation was transferred from the Phosphate Mining Company of Christmas Island (a limited liability company wholly owned by the Australian Government) to the Phosphate Mining Corporation of Christmas Island (PMCI), a statutory authority.

When it became apparent that PMCI could not operate within an agreed Government underwrite, the Government decided to close down the mining operation. A liquidator was appointed on 11 November 1987 to wind up PMCI. The mining operation ceased on 31 December 1987, although it was announced in February 1988 that the Government would consider proposals by private operators to recommence phosphate mining on the Island provided that certain guidelines were met, including that there be no further rainforest clearing.

In July 1990 a Mining Joint Venture (MJV) of Saley Investments (Saley) and Clough Engineering (Clough) was accepted as the preferred tenderer for the Christmas Island phosphate mining operation on the basis of superior finanacial return to the Commonwealth.

The mine employs approximately 60-70 staff and it is expected to ship a minimum of 300,000 dry tonnes of phosphate per year.

A lease and sales agreement was signed by the MJV on 26 September 1990 and included 40 per cent equity for Island residents through Phosphate Resources NL (PRNL). In October 1990 PRNL acquired all the Saley shares increasing its equity to 49 per cent. On 11 June 1991 PRNL acquired Clough's equity in the mining venture.

The lease requires that a royalty payment be made to the Commonwealth for each tonne of phosphate rock shipped. The royalty payment includes a $1.50 per tonne rehabilitation levy, payable to the Commonwealth in order to carry out rehabilitation work on mined and previously mined areas on the Island.

In allowing phosphate mining to recommence on the Island, the Commonwealth has set strict environmental controls, including no further rainforest clearing.

Notwithstanding the recommencement of mining, the Government is actively encouraging private sector investment in new activities on the island to secure an economic future which is not solely dependent on mining. Several development proposals, including a major tourist hotel/casino project, are progressing.

The Resort/Casino covers 47 hectares and includes a core building with entertainment, restaurant, service and gaming facilities and detached single and double storey five star accommodation. It is intended that the casino will be operated by the existing operator of the Launceston and Hobart Casinos, Federal Hotels.

The Christmas Island Casino Control Ordinance was made on 22 September 1988. This ordinance provides for the establishment of a casino surveillance authority and the appointment of a Casino Controller. A lease for the site was signed on 17 May 1989.

The main construction work commenced on the hotel core buildings on March 1991. The opening date for the hotel is appproximately October/November 1992. During construction of the development, a minimum of 30 local residents will be employed.

The Government has recognised that the unique environment of the Island holds the key to its future development, in particular tourism. Several rare and endangered species of wildlife live on Christmas Island, the best known being the Abbotts Booby, an endemic sea bird which nests in emergent trees in the rainforest canopy. On 5 April 1989, the Government notified a major extension to the National Park. The Park now covers approximately 60–70 per cent of the Island.

Transport and communications

A Joint Island Supply System (JISS) commenced operations on 1 February 1989. It was designed to provide a more efficient and cost effective shipping service to meet the needs of people living and working on both the Christmas and the Cocos (Keeling) Islands.

An air charter arranged by the Department of the Arts, Sport, the Environment and Territories provides a weekly service to the island following alternate routes, Perth–Christmas Island–Cocos (Keeling) Islands–Perth one week and Perth–Cocos (Keeling) Islands–Christmas Island–Perth the next. The Department also currently operates a fortnightly air charter between Singapore and the island.

The Territory has its own radio broadcasting station, police force, hospital, postal service and philatelic bureau. The VISTA communications system which provides an external telex and telephone service by INTELSAT satellite, and a back-up INMARSAT system, became fully operational on 17 October 1985.

Education

The Christmas Island Area School is run by the Administration. The school provides education from pre-school level through to Year 10 secondary level. It follows a locally developed curriculum aligned with that used in Western Australia. There are 306 students enrolled at the school. Senior secondary students (Years 11 and 12) receive assistance from the Administration to attend schools in Western Australia.

CORAL SEA ISLANDS TERRITORY

The Coral Sea Islands Territory is situated east of Queensland between the Great Barrier Reef and longitude 156°06′E and between latitudes 12° and 24°S. The Territory comprises all the islands in a sea area of approximately 780,000 square kilometres. The islands are largely formed of sand and coral. Some have grass or scrub cover, but most are extremely small, with no permanent fresh water. The remaining islands are uninhabited. A meteorological station, staffed by three people, has operated on Willis Island since 1921. There are occasional tropical cyclones in the area. Meteorological data are relayed to the mainland from automatic weather stations located on Cato Island, Flinders Reef, Frederick Reef, Holmes Reef, Lihou Reef, Creal Reef, Gannet Cay and Marion Reef.

In the 19th century many ships were wrecked in the area, and the reefs and islands are often named for the ships which foundered there. There are navigation aids on several of the reefs and islands.

There have been a number of scientific expeditions to the region since 1859 and many specimens of flora and fauna are now housed in Australian herbariums and museums.

Six species of sea turtle nest in the Coral Sea Islands Territory, including the largest species in the world, Dermochelys coriacea which is regarded as one of the most endangered of the world's sea turtles. There are at least 24 bird species in the Territory; a number of these species are protected under Australia–Japan and Australia–China agreements on endangered and migratory birds. In 1982, the Lihou Reef and Coringa–Herald National Nature Reserves were declared to protect the wildlife in the Territory.

Administration

In 1969, the Coral Sea Islands became a Territory of the Commonwealth under the Coral Sea Islands Act. The Minister for the Arts, Sport, the Environment and Territories in Canberra, is responsible for the administration of the Territory.

THE TERRITORY OF ASHMORE AND CARTIER ISLANDS

Ashmore Islands (known as Middle, East and West Islands) and Cartier Island are situated in the Indian Ocean some 850 to 790 kilometres west of Darwin. The islands lie at the outer edge of the continental shelf. They are small and low and are composed of coral and sand. Vegetation consists mainly of grass. The islands have no permanent inhabitants.

Great Britain took formal possession of the Ashmores in 1878 and Cartier Island was annexed in 1909. By Imperial Order in Council of 23 July 1931, the islands were placed under the authority of the Commonwealth of Australia. The islands were accepted by Australia through the *Ashmore and Cartier Islands Acceptance Act 1933* under the name of the Territory of Ashmore and Cartier Islands. By amendments to the Act in 1938, the Territory was annexed to, and deemed to form part of, the Northern Territory. With the granting of self-government to the Northern Territory on 1 July 1978, the administration of the Territory became a direct responsibility of the Commonwealth Government.

Responsibility for the administration of the Territory rests with the Minister for the Arts, Sport, the Environment and Territories. Laws of the Northern Territory apply in the Territory insofar as they are applicable.

Birdlife is plentiful on the islands of Ashmore Reef. Turtles are plentiful at certain times of the year and bêche-de-mer are abundant. In recognition of the environmental significance of the area, the Reef was in 1983 given the status of a national nature reserve under the *National Parks and Wildlife Conservation Act 1975*. Regular visits are made to the Reef by officers of the Australian National Parks and Wildlife Service.

An agreement between Australia and Indonesia allows Indonesian fishermen to continue to fish in some waters of the Territory. Since 1985, an Australian presence has been maintained at Ashmore Reef during the March to November fishing season to monitor the activities of visiting Indonesian fishermen.

The Jabiru and Challis oil fields are located within the adjacent area of the Territory.

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AUSTRALIAN REPRESENTATION OVERSEAS 132

The basic principles underlying the shaping and conduct of Australia's foreign policy are that Australia is a significant middle-level power with democratic institutions, having strong affiliations with other Western countries but an emerging Asia–Pacific identity through its increasing regional involvement.

Australia's prosperity is largely dependent on trade; it is geographically remote from some of its major markets and its main allies; it is a relatively affluent and resource rich country in a populous, developing and rapidly changing region.

While links with the United States, Britain and Europe remain important factors in Australian foreign policy in terms of cultural tradition, security, strategic interests and trade and investment, the specific focus of policy has shifted in the past 25 years to the Asia–Pacific region.

Australia is located in a region which includes the politically, economically and strategically significant countries of North Asia, South-East Asia, South Asia, the Indian Ocean and many newly independent nations of the South Pacific. Awareness of the importance of these neighbouring states has led successive Australian Governments to seek to promote and maintain friendly and cooperative relations with them, not only to ensure the stability and security of the region, but also to develop mutually profitable trade, investment, exchange of technology, and cooperation in the development process. Australia gives special attention to its relations with China, Japan, the Republic of Korea, the member countries of ASEAN (the Association of South-East Asian Nations), New Zealand, Papua New Guinea and the other South Pacific states.

International issues including economic cooperation, disarmament, trade access, global environmental protection, human rights, refugees, and new concepts of national interest in the post cold war world have assumed importance together with an increasing recognition of the growing interdependence of the world community. This is reflected in such issues becoming priorities in Australia's foreign policy. Australia recognises the importance and growing complexity of economic issues, particularly the need to maintain the recovery of world trade and to promote ecologically sustainable economic development and to deal with the major problem of world debt affecting both developed and developing countries. The growing interdependence of national economic and foreign policies and the increasing vulnerability of Australia's economy to international trade and other developments will remain at the heart of Australia's foreign policy concerns for some time to come. Australia places a high priority on its participation in the resolution of these global issues not only in the United Nations and other multilateral forums, but also in the regional context through multilateral bodies such as Asia–Pacific Economic Cooperation (APEC).

The United Nations

Australia was an original member of the United Nations. At the San Francisco Conference in 1945, which drafted the Charter of the United Nations, Australia succeeded in having the collective security measures contained in the UN Charter strengthened. With the passing of the Cold War, the Charter's collective security provisions were put successfully to their first real test in the international response to Iraq's invasion of Kuwait. The United Nations' system also provides the forums in which Australia can pursue its objectives in relation to disarmament, peacekeeping, human rights, international economic issues, women, control of drug trafficking, decolonisation and international law. Australian membership of the United Nations specialised agencies provides Australia significant benefits, particularly from the agencies responsible for the establishment of new international norms and standards.

Australia has served on many United Nations' bodies. It was a member of the Security Council in 1946–47, 1956–57, 1973–74 and in 1985–86. In 1975, a long period of Australian membership of the Trusteeship Council came to an end with the independence of Papua New Guinea. Australia was a long-standing member of the Special Committee on Decolonisation until its withdrawal in January 1985 following UN recognition of the Cocos (Keeling) Islands' decision to integrate with Australia.

Australia supports the work of the specialised agencies and subsidiary bodies in such areas as development assistance, drug control and human rights. It is an active participant in the economic work of the United Nations, through such forums as the UN Conference on Trade and Development (UNCTAD), the Food and Agriculture Organisation (FAO), the World Food Program (WFP), and the UN Development Program (UNDP). Australia also participates in regional consideration of social and economic issues in the Economic and Social Commission for Asia and the Pacific (ESCAP), the United Nations' regional body. In 1989 Australia was re-elected for a further four-year term on the Commission on Narcotic Drugs. It is a member of the Governing Council of the UN Environment Program (UNEP) and is a long-standing member of the Governing Body of the International Labour Organisation (ILO). Australia is an active member of the UN Education, Scientific and Cultural Organisation (UNESCO) (former Minister, the Honourable Barry Jones, M.P., was elected to UNESCO's Executive Board in 1991) and its prominent role in world refugee assistance is reflected in membership of the Executive Committee of the UN High Commissioner for Refugees.

Australia has been a major contributor to UN peacekeeping operations since these began. Australia contributes its assessed share of the costs of UN budgets (1.51%), and similar percentages to all other UN bodies of which it is a member. In addition it makes voluntary contributions as well as providing personnel and equipment for peacekeeping forces. At present Australia provides personnel for the UN Forces in Cyprus, the UN Truce Supervision Organisation in the Middle East, the UN Mission for a referendum in the Western Sahara and the UN Advance Mission in Cambodia, and will be a major contributor to the UN Transitional Authority in Cambodia.

Australia is fully involved in the work of the UN on disarmament and outer space, and is a member of the main subsidiary bodies working in these areas. Australia continues to play an active role in the UN Commission on Human Rights and fully participates in the work of other UN bodies dealing with the implementation of international human rights conventions. Australia was re-elected to the Commission on Human Rights for a three-year term which began in January 1991. Australia was elected to the International Law Commission in 1991 and also elected to ECOSOC for the period 1992–94. Australia is seeking election to the Commission on the Status of Women in 1992. Australia accepts the compulsory jurisdiction of the International Court of Justice and plays an active role in bodies concerned with the development of international law.

The Commonwealth

The Commonwealth is an association of 50 countries, drawn from every region of the globe, which now comprise one quarter of the world's population. Australia seeks, through its Commonwealth membership, to foster international peace and security, and political, social and economic advancement. The last Commonwealth Heads of Government Meeting (CHOGM) was held in Harare, Zimbabwe, in October 1991.

South–East Asia

Australia maintains wide-ranging relations with the countries of ASEAN (Indonesia, Malaysia, the Philippines, Thailand, Singapore and Brunei), both bilaterally and as a group. These relationships include political, economic and trade consultations, commercial, cultural and defence ties and wide-ranging personal contacts. There are regular Ministerial visits in both directions. Two-way trade between ASEAN and Australia is growing rapidly and now represents eight per cent of Australia's total trade with the world.

Indonesia is one of Australia's closest regional neighbours and straddles major sea and air routes. Australia is committed to the maintenance of sound and productive relations with Indonesia. Accordingly, Australia has pursued an active relationship with Indonesia in the areas of trade, investment, science, defence and culture. Australian aid to Indonesia is expected to be around $114 million in 1991–92. Efforts to add further substance to the relationship through building on concrete areas of mutual interest have resulted in the development of a more substantial bilateral trade and commercial relationship as well as close cooperation on international economic issues. The commencement of the Timor Gap Zone of Cooperation Treaty on 9 February 1991 was a significant milestone in expanding practical areas of cooperation. There was also an increase in people-to-people contact through the activities of the Australia Indonesia Institute.

The Australian Government expressed its deep concern over the 12 November Dili killings in public statements and in representations to the Indonesian Government. The outcome of the Indonesian National Commission of Inquiry into the killings has been encouraging and the Indonesian Government's response to the Commission's advance report has been both positive and useful. The Government is continuing to follow closely several unresolved aspects arising from the killings making clear our position with continuing direct representation to the Indonesian Government.

Australia and Thailand share a range of political, strategic and economic interests. Thailand's impressive progress towards industrialisation and its success in international markets has made it increasingly important to Australia as a trading and investment partner. Cooperation in multilateral trade matters through the Cairns Group is also an important aspect of the relationship. Australia's relationship with Thailand is given added substance through development assistance, defence cooperation, and cooperation in narcotics control. Australia's concern at the February 1991 military coup and wish to see an early return to democratic government were conveyed to the Thai authorities.

Malaysia and Australia have a long history of close and constructive relations, covering the full range of political, defence, commercial and social links. Education links are particularly strong and have contributed significantly to continuing personal contacts between people, business, academic and government circles. Malaysia and Australia cooperate closely on defence and international trade issues.

Australia has a tradition of close interest in and association with Singapore. Relations are broadly based, encompassing the whole range of bilateral areas including trade and investment, defence, education, civil aviation, tourism and cultural relations.

The Philippines is important to Australia because of its strategic location and close cooperation on a range of matters of mutual interest. Australia has a substantial development assistance program with the Philippines, and there are important linkages through trade, migration and tourism.

Relations between Brunei and Australia are developing steadily, especially in the fields of trade, defence and education.

Relations with Myanmar slowed significantly after the brutal suppression of the pro-democracy movement in that country in 1988 and the military regime's continuing failure to implement the result of the 1990 election. Aid will not be resumed until a democratically-elected government is installed. Trade and other contacts remain at low levels.

Australia is concerned by the destabilising effects on the South-East Asian region posed by the situation in Cambodia. Australia's policy has been to promote dialogue among the parties to the conflict in order to achieve a comprehensive political settlement. Australia has proposed that in the transitional period leading to elections, the United Nations has a role in civil administration, in providing security and in organising and conducting elections, so that Cambodians will be able to determine their future without fear of coercion.

Australia is also developing a more broad-based relationship with Vietnam through increased trade, visits and cultural exchanges. Bilateral aid remains suspended pending resolution of the Cambodian conflict, but humanitarian aid is given indirectly through multilateral and non-government organisations. Australia is also developing relations with Laos, principally through development assistance, the main element of which is a commitment to build a bridge across the Mekong near Vientiane.

Japan

Japan remains Australia's largest trading partner, with a two-way trade in 1990 of $22.7 billion — over 20 per cent of Australia's total trade. While traditional markets in minerals and energy and agriculture continue to dominate Australia's export market to Japan, manufactured and processed products comprised almost 25 per cent of this market in 1990. Tourism has also expanded rapidly in recent years, with some 470,000 Japanese visitors to Australia in 1990. Japan remains our primary source of foreign investment, largely in mining, agriculture and tourism. While this investment is welcomed, Australia is aiming to attract more foreign investment to the manufacturing sector. At the eleventh meeting of the Australia–Japan Ministerial

Committee in May 1991, both sides reaffirmed their close economic, political and cultural cooperation and agreed to further diversify the relationship, commensurate with global developments.

China

Following a review of bilateral relations in February 1991, the Australian Government lifted most of the remaining restrictions that had been imposed on contacts with China after the suppression of the 1989 pro-democracy movement. Senator Evan's visit to Beijing in April 1991 marked the formal resumption of the high level dialogue and demonstrated Australia's commitment to long-term cooperation with China. The Australian Government pursued its continuing concern about the human rights situation in China through the visit of an official Australian delegation to China during July 1991. Total two-way trade increased from $2.4 billion in 1989 to $2.6 billion in 1990 and economic cooperation continued to be facilitated during 1991 by meetings of several Joint Working Groups focusing on different industry sectors.

Hong Kong

With two-way trade of $2.3 billion, Hong Kong, is Australia's fifth largest Asian export market, following Taiwan, Singapore, Korea and Japan. Hong Kong is also an important source of migration, tourism and investment, as well as a major target for the export of education services.

Taiwan

While Australia has no official links with Taiwan, the commercial relationship is growing and likely to increase significantly following the commencement of direct air services between Australia and Taiwan in October 1991. Taiwan is an important source of tourism for Australia and is Australia's main export market for manufactures. Two-way trade in 1990–91 was valued at $3.7 billion and Taiwan ranks as Australia's fourth largest Asian export market and sixth largest export market overall.

Korea

Australia enjoys close and expanding relations with the Republic of Korea based on a dynamic trading relationship. The Republic of Korea is Australia's third largest export market, with exports of $3 billion in 1990, up 21 per cent from the previous year. The second and final meeting of the Australia–Korea Forum was held in Seoul in April 1991. Its recommendations included practical measures to enhance dialogue on political and strategic issues, to diversify the economic relationship, and to broaden the base of cooperation to include expanded science and technology, educational and cultural exchanges. To this end, the Australian and Korean Governments have decided to establish reciprocal Foundations.

Australia has no diplomatic relations with the Democratic People's Republic of Korea, but there were limited contacts during 1991.

South Pacific

Australia is a member of the South Pacific Forum, the Forum Secretariat (formerly the South Pacific Bureau for Economic Cooperation), the Forum Fisheries Agency, the South Pacific Commission, the South Pacific Regional Environmental Program (SPREP) and the South Pacific Applied Geoscience Commission. Australia actively participates in meetings of these organisations and provides significant financial support to them and to other regional and international programs providing assistance to the South Pacific region. To assist in the preservation and development of indigenous Pacific cultures, Australia has established the South Pacific Cultures Fund. Australia and New Zealand have entered into a non-reciprocal preferential trade agreement in favour of the South Pacific Forum Island States, the South Pacific Regional Trade and Economic Cooperation Agreement. Australia is a party to the South Pacific Nuclear Free Zone Treaty (the Treaty of Rarotonga). Australia ratified the Convention for the Protection of the Natural Resources and Environment of the South Pacific Region (SPREP Convention) on 19 July 1989 and the Convention on the Conservation of Nature in the South Pacific (Apia Convention) on 28 March 1990. The Apia Convention provides for the protection of natural resources through the creation and management of protected areas, the protection of flora and fauna, cooperation and coordination in respect of research and exchange of information. The SPREP

Convention and its protocols provide for the protection, development and management of the marine and coastal environment. Both Conventions came into force in 1990 and the first meetings of parties to both Conventions were held in July 1991. Australia has also signed the Wellington Convention on the Prohibition of Driftnet Fishing in the South Pacific, which came into force in May 1991.

Relations between Australia and New Zealand reflect their shared history, similarities in political and social structure and the importance of the economic links. While Australia and New Zealand still have some differences of view in the defence policy area, specifically in relation to ANZUS, other aspects of the relationship have continued to expand. This has been exemplified in the 1988 Review of the Closer Economic Relations Trade Agreement which provided for free trade in goods from 1 July 1990, the extension of CER into trade in services and increased harmonisation of the commercial environment. The encouragement of political and cultural exchanges through the Australia New Zealand Foundation reflects another dimension in the close relationship. Australia and New Zealand also often work closely in their approaches to the international political and economic environment.

Papua New Guinea

Australia and Papua New Guinea (PNG) enjoy a very close and cooperative bilateral relationship based on shared political, strategic and economic interests and ties that have continued at all levels of society since PNG attained its independence in 1975. In 1990, Australian exports were valued at $757 million, imports $369 million and the total level of Australian investment in PNG was about $1.5 billion. Major resource developments, most notably the Kutubu oil project, should see Australian investment increase further in the 1990s.

PNG is the largest single recipient of Australian development assistance, accounting for around one quarter of the aid program. In 1990–91, PNG received $322 million in total aid from Australia including $275 million in budget support and $31 million in project aid. The 1989 Treaty on Development Cooperation establishes principles, levels and forms of aid to PNG for the period ending 30 June 1994 and reflect Australia's continuing commitment to contribute to PNG's development and self-reliance. Additional Australian aid to that provided for under the Treaty was made available in 1990 as part of an international effort to help PNG overcome especially difficult budgetary circumstances.

The 1987 Joint Declaration of Principles (JDP) provides the framework for bilateral relations between Australia and PNG and covers a broad range of issues including defence, trade, investment, development assistance, consular relations, communications and border administration. An important element of the JDP is its consultative mechanism, the PNG Australia Ministerial Forum. The fourth Forum took place in Madang in February 1992.

The Torres Strait Treaty between Australia and PNG entered into force in February 1985. The Treaty defines the maritime boundaries between PNG and Australia and sets down provisions to protect the traditional ways of life of inhabitants on both sides of the border, to protect the environment, to ensure freedom of navigation and overflight, and regulate the exploitation of resources.

The Americas

Australia has a long-standing relationship with the United States which extends across the whole range of national life. Government-to-government relations are one part of a larger and more extensive interaction between the two societies with interlinked culture and language. Relations between the countries are warm and cooperative, with a high degree of official consultation, most notably shown in the recent visit by President Bush. The affinity is underpinned by substantial economic and commercial relations, although perspectives can and do differ on aspects of trade policy.

Australia's defence links with the United States under ANZUS serve the vital interests of both countries by contributing to regional security and the maintenance of global stability.

Canada is a country comparable with Australia in terms of institutions and traditions, geographical size, and international outlook. This has allowed a close degree of cooperation and interchange of ideas between the two countries.

Australia takes an increasing interest in developments in Latin America. Recent positive political and economic developments in Latin America, including an increasing focus on the Asia–Pacific region and constructive cooperation on multilateral trade and Antarctic issues, are fostering closer relations between Australia and many Latin American countries. Relations with the Caribbean are warm, particularly through the Commonwealth.

Europe

Australia seeks to maintain constructive and profitable relations with the countries of Western Europe, with the European Community (EC) and its institutions, including the European Parliament.

Bilateral relations with the individual Western European countries continue to be of considerable importance. These relations, while founded on close historical, social and cultural links, continue to develop through extensive trade and investment links. Trade, however, is constrained by the EC's continued adherence to agricultural protectionism.

The EC is one of Australia's most important trading partners and our most important source of investment funds and technological expertise, as well as a significant importer of Australian raw materials. The establishment of the EC single market and its proposed extension to embrace the EFTA countries will present Australia with important new commercial opportunities. Despite tensions caused by trading difficulties in the agricultural sector, Australia remains committed to the strengthening of a positive relationship with the EC on the principle of mutual advantage, and has secured EC agreement to a collaborative work program in science and technology, business links, the environment, energy, development assistance, industry cooperation and to regular contacts at a senior level on foreign policy questions.

In recent years revolutionary changes have swept through Eastern Europe and the former Soviet Union. Australia has an interest in encouraging the trend in these countries towards democratic processes of government and market-oriented economies. Elections held throughout Eastern Europe have been largely free and fair and the newly elected governments have generally shown a desire to respect the basic human rights of their people.

Australia has been quick to react to the changes and in August 1991 decided to enter into diplomatic relations with Latvia, Lithuania and Estonia. In December 1991 Australia recognised eleven former republics of the USSR but not Georgia where the political situation remained uncertain. In January 1992 Australia recognised Croatia and Slovenia.

While the pace of democratic change will obviously vary from country to country, these changes will result in a reorientation both politically and economically away from the previous political and trading relationships.

Australia has been active in providing practical assistance to Eastern Europe through the Group of 24 OECD member countries and the European Bank for Reconstruction and Development.

There are up to half a million Australians who trace their origins to Eastern Europe and many of them have retained their language skills. This should provide a sound base from which to extend Australia's contacts with Eastern Europe in trade, investment and tourism.

Australia's trade with Eastern Europe is led by sales of wool and other commodities. While Eastern Europe will remain a significant market for Australia, the transition away from central planning is creating dislocations in these countries' economies which may, in the short term, affect their ability to service high levels of imports.

The Middle East

Australia has substantial trading interests in the area and long-standing friendly relations with the Arab nations, Iran and Israel. Australia's policy towards the Middle East is based on two main premises: a total commitment to Israel's right to exist within secure and recognised boundaries; and recognition of the right of self-determination for the Palestinian people, including their right, if they choose, to independence and the possibility of their own independent state. Australia supports efforts to bring about negotiations of differences in the region, e.g., in such areas of conflict as the Arab–Israeli dispute and the problems facing Lebanon. Australia supports all efforts to negotiate the Arab–Israeli dispute, and believes a settlement should be based on UN Security Council Resolutions 242 (which, inter alia, recognises the right of all States in the area to live in peace within secure and recognised boundaries and calls on Israel to withdraw from territories captured in 1967) and 338 and the principle of land for peace. The Government recognises, however, that any such arrangement will depend on decisions involving people of the immediate region. Australia supports the Middle East peace talks which began in Madrid in October 1991.

Australia was in the forefront of the international condemnation of Iraq for its invasion and annexation of Kuwait, and continues to observe and encourage the implementation of all Security Council resolutions pertaining to Iraq. Australia responded promptly to the call for participation in the multinational naval force to enforce sanctions against Iraq following the invasion of Kuwait, and has continued the deployment of elements of the Royal Australian Navy in support of the sanctions regime. At the same time, the Government believes that sanctions should not be imposed at the expense of the Iraqi people, and endorses action taken by the Security Council to permit the sale of Iraqi oil to allow the purchase of food, medicines and essential civilian needs for the population of Iraq.

Africa

Australia maintains a broad range of contacts with African states, and is closely concerned with developmental and humanitarian issues affecting Africa.

Its strong and continuing opposition to racial discrimination and the apartheid system was reflected in its adoption of all measures against South Africa agreed at the Commonwealth Heads of Government Meetings (CHOGMs) in Nassau (1985) and London (1986), its financial sanctions initiative agreed to at CHOGM in Kuala Lumpur (1989) and its active role in encouraging peaceful change in South Africa through the Commonwealth Committee of Foreign Ministers on Southern Africa (CFMSA). Australia has welcomed progress towards the normalisation of the political situation in South Africa since February 1990 and the commencement of formal all-party negotiations in December 1991 with the first meeting of the Convention for a Democratic South Africa (CODESA). Sir Ninian Stephen was Australia's representative in the Commonwealth Observer Group invited to the meeting. The Australian proposal for the phased lifting of sanctions in response to South African Government reforms was adopted by CFMSA in London (February 1991) and endorsed in New Delhi (September 1991). These meetings also agreed to a selective easing of the sports boycott, on a sport-by-sport basis, as individual sports achieve unity, are readmitted to international governing bodies, and receive the agreement of the non-racial sporting movement in South Africa for a return to international sports competition. In October 1991 the Harare CHOGM adopted CFMSA's recommendations on the phased lifting of sanctions and agreed on the immediate lifting of all people-to-people measures. Australia acted quickly to remove restrictions on cultural and academic contact, visas, tourist promotion and airlinks.

The Australian Government's commitment to an economically robust post-apartheid South Africa was demonstrated by visits to South Africa by an Economic Planning Assistance Team in May 1991 and by Senator Evans in June 1991, the first visit by an Australian Foreign Minister for 40 years. South African Foreign Minister Pik Botha reciprocated with a visit to Australia in October 1991.

Australian aid to Africa is focused on eastern and southern Africa. This includes assistance given through the Southern African Development Coordination Conference as well as humanitarian assistance for the reintegration and development of South Africans disadvantaged by apartheid. Food aid constitutes the dominant share of Australian aid to Africa because of growing food deficits and the continuing famine crisis in the horn of Africa and Mozambique.

Indian Ocean

Australia, as an Indian Ocean littoral state with wide interests in the region, is committed to the development of the concept of an Indian Ocean Zone of Peace (IOZP). For many years Australia has played an active and constructive role in the United Nations Ad Hoc Committee on the Indian Ocean. The Ad Hoc Committee has so far not succeeded in its attempt to convene an international conference on the Indian Ocean to develop the IOZP concept. Australia maintains a modest aid program to Mauritius and other smaller Indian Ocean states.

ANZUS

Following a review in 1983 of the ANZUS Treaty by the Australian Government, including a re-examination with its ANZUS partners at the 1983 ANZUS Council Meeting in Washington, the Government reaffirmed the alliance as fundamental to Australia's national security and foreign and defence policies. The text of the ANZUS Treaty of 1952 can be found in Treaty Series No. 2, for 1952, printed by the then Department of External Affairs. In 1984, the New Zealand Government implemented a policy not to permit the entry to New Zealand of nuclear powered warships or of warships (or aircraft) which might carry nuclear weapons. Consequently the United States, at the Australia–United States ministerial talks in August 1986, formally suspended its security obligations to New Zealand under the ANZUS Treaty pending adequate corrective measures. Both the United States and Australia agreed that the relationship between the United States and Australia under the ANZUS Treaty and the rights and obligations assumed by the United States and Australia towards each other under the Treaty would remain constant and undiminished. ANZUS continues to govern the bilateral defence relationship between Australia and the United States, and that between Australia and New Zealand.

Nuclear issues

Australia's strong commitment to effective nuclear disarmament and arms control is reflected in its support for the international non-proliferation regime. Australia ratified the Nuclear Non-Proliferation Treaty (NPT) in 1973 and encourages universal adherence to it.

The response of the international community to the Gulf conflict has revealed a new political climate within which to address nuclear non-proliferation problems. A feature of this has been the adoption of a more forthcoming attitude toward the international non-proliferation regime by a number of important countries, including the decisions to accede to the Treaty of France, China and South Africa.

Australia has continued to encourage new adherents to the NPT and scrupulous fulfilment of the obligation for all Non-Nuclear Weapon States Parties to conclude a safeguards agreement with the International Atomic Energy Agency (IAEA).

Australia is a founding member of the IAEA and provides political and financial support to the IAEA. Australia's active participation in the IAEA, including contributions to the IAEA regular budget and to the Technical Assistance and Cooperation Fund, helps the Agency to continue to function in an effective and efficient manner. Australia has a particular interest in the strengthening of the international nuclear safeguards regime in the light of the lessons of the Gulf War.

The stringent nuclear safeguard conditions applied to exports and subsequent use of Australian uranium are set out as binding international legal obligations in the bilateral nuclear safeguards agreements which customer countries must enter into before any uranium exports from Australia are permitted. These conditions include an undertaking not to use Australian-obligated nuclear material for any military or explosive purpose, and the acceptance of IAEA safeguards in order to verify that undertaking. Australia has concluded fifteen bilateral nuclear safeguards agreements covering twenty-three countries and two international bodies.

Australia is also a member of the Nuclear Energy Agency (NEA) of the Organisation for Economic Co-operation and Development (OECD). Australia values the NEA as an essentially technical forum for international consultation on nuclear issues.

Disarmament and arms control

Australia promotes arms control and disarmament objectives at the United Nations, the Conference on Disarmament in Geneva and other world forums.

Australia attaches great importance to the early conclusion of an effective, verifiable treaty banning all nuclear testing by all States in all environments for all time (a Comprehensive Test Ban) and is committed to strengthening the Treaty on the Non-Proliferation of Nuclear Weapons (NPT). Through membership of the IAEA since its inception in 1957, it is able to promote non-proliferation policies and contribute to regional and wider nuclear cooperative projects. Australia, together with other South Pacific countries, was instrumental in negotiating the South Pacific Nuclear Free Zone Treaty (Treaty of Rarotonga) which came into force on 11 December 1986.

Australia is committed to the conclusion of a fully effective and verifiable Chemical Weapons Convention (CWC) which would ban the production, trade in and use of chemical weapons and require the destruction of existing stockpiles. In 1990, Australia was Western coordinator in the Conference on Disarmament's Chemical Weapons Committee, which is charged with the negotiation of a CWC. Australia also chairs a group of countries called the Australia Group, which meets twice a year and comprises 22 western industrialised countries and the Europe Commission. The group works towards harmonising the export controls of members countries over chemicals and equipment used in the production of chemical weapons. Its work has been expanded to include biological weapons proliferation.

In September 1989 Australia hosted an international Government–Industry Conference Against Chemical Weapons which obtained industry support for the CWC. A Chemical Weapons Regional Initiative (CWRI) has since 1988 raised awareness of chemical weapons issues in South-East Asia and the South Pacific with the objective of developing support for the CWC and preventing proliferation of chemical weapons into the region. The CWRI has resulted in two seminars in Australia in 1989 and 1990 and a technical workshop for government chemists from the region in 1991.

Australia has been concerned about the implications for strategic stability of research into ballistic missile defences. Australia continues to press for international arrangements and agreements which will prevent an arms race in outer space.

Australia has acceded to the following disarmament and arms control agreements: the Partial Test Ban Treaty, the Geneva Protocol (on the Prohibition of the Use in War of Asphyxiating Poisonous or Other Gases and of Bacteriological Weapons), the Outer Space Treaty, the Sea-Bed Arms Control Treaty, the Nuclear Non-Proliferation Treaty, the Biological Weapons Convention, the Environmental Modification Convention, the Antarctic Treaty, and the Inhumane Weapons Convention. Australia was the first signatory to the South Pacific Nuclear Free Zone Treaty on 6 August (Hiroshima Day) 1985.

Trade relations

One of Australia's highest priorities is to continue to improve international economic and trade performance through a range of bilateral and multilateral strategies, as well as through structural adjustments and micro-economic reforms.

The economic recession of the world economy in the 1970s and early 1980s led to the growth world-wide of protectionist pressures and moves towards seeking solutions to economic problems through bilateralism and the formation of trade blocs. The Australian Government has endeavoured to counter trends towards increased protectionism and to encourage freer trade through active participation in forums such as the General Agreement on Tariffs and Trade (GATT). GATT is the principal multilateral institution for the pursuit of the further liberalisation of world trade. Australia has consistently supported a reduction in barriers to trade and the concept of an open and multilateral trading system, and is playing an active role in the Uruguay Round of Multilateral Trade Negotiations taking place under GATT auspices.

In particular, Australia initiated the formation of the 14 member Cairns Group of Fair Traders in Agriculture, which has established itself as an effective proponent of reform in international agricultural trade. It is also participating actively in Uruguay Round negotiations in other areas, notably services trade.

Australia also has a strong commitment to the freedom of international capital flows. Because it is a net capital importer, it is of considerable importance to Australia that the international system be increasingly open and adaptable to facilitate the global exchange of goods, services, labour and capital. This is all the more so in view of the significant challenges imposed on the international monetary system by the continuing significant world economy changes in the world economy.

The last two decades have seen the economies of the Asia Pacific region (in this case taken as the Western Pacific region plus North America) emerge as the fastest growing in the world. The region accounts for over half the world's economic output and more than 40 per cent of world trade. While containing some of the world's most dynamic economies, these too have been affected adversely by the general downturn in the international economy — although not to the same extent as elsewhere. It was against this background that Australia launched the Asia Pacific Economic Cooperation (APEC) process in January 1989.

The initiative reflected Australia's major stake in economic developments in the dynamic Asia Pacific region. The extent of Australia's integration will be critical to Australia's economic future. The region already accounts for 70 per cent of our merchandise exports and 66 per cent of our merchandise imports. Australia's primary objectives in greater regional economic cooperation, particularly through APEC, are to enhance the prospects for sustained regional growth and development, and to take part in that growth.

The initial APEC Ministerial-level meeting was held in Canberra in November 1989; the second in Singapore in July 1990: and the third in Seoul in November 1991. The next APEC Ministerial meeting will take place in Bangkok in September 1992. Participants in APEC now include the six ASEAN nations, Japan, The Republic of Korea, New Zealand, Canada, the USA, China, Chinese Taipei and Hong Kong. (The last three were admitted at the Seoul Ministerial meeting.) The ASEAN and South Pacific Forum Secretariats, as well as the Pacific Economic Cooperation Conference (PECC) have observer status in APEC. As a result of the three Ministerial meetings to date, an ongoing process of cooperation that will benefit all Asia Pacific economies has been established. It is now widely regarded as the leading economic forum of the region. While considerable progress has been achieved in consolidating the APEC process, the Seoul Ministerial meeting authorised a study of the options for an APEC support mechanism (such as a secretariat) and funding arrangements.

A major focus of APEC activity to date has been on the detailed work program. Initially, this comprised seven projects: review of trade and investment data; trade promotion; investment and technology transfer; human resources development; energy; marine resource conservation; and telecommunications. Australia is coordinator of the energy project. During 1991 there was encouraging progress on these work projects, and three new projects were commenced, in the areas of fisheries, transportation and tourism. Australia hosted a seminar on trade promotion in Sydney in May 1991. This was the first major APEC activity which had sought to involve private sector representatives directly.

This group identified the principles, scope and possible process by which trade liberalisation in APEC might be carried forward, and its report was endorsed by Ministers at the Seoul meeting in November 1991. The subject of regional trade liberalisation will thus be the major policy focus of APEC's agenda in 1992.

Australia maintains its commitment to accelerating the economic development of Developing Countries (DCs). To this end, Australia extends preferential import treatment to DCs for all dutiable goods. Other concessions also apply to handicraft type goods which meet certain criteria regarding content, character and method of manufacture.

An efficient and internationally competitive services exports sector is integral to improving Australia's international trade performance. Australia's expanding services exports have been given impetus by a series of major micro-economic reforms over recent years in areas such as telecommunications, aviation and financial services. Increased services exports, highlighted by the rapid growth of inbound tourism — now Australia's largest foreign exchange earner, are not only expanding Australia's export base but also tapping into rising Asia-Pacific and global demand for innovative, high value added products. Apart from tourism and aviation, education, telecommunications, computing and consultancy services now feature among Australia's growing export industries. In addition, Australian exporters are achieving increasing success in new fields such as health and medical services, audio-visual products and environmental management. There is a growing awareness of the export potential in such areas as financial services, and construction. Efforts are being intensified to take greater advantage of the important synergies between various services export activities.

Australia's participation in multilateral economic organisations supports a broad range of foreign policy, economic and trade objectives. Australia gives particular priority to encouraging agencies to promote the expansion of practical and policy measures which support trade liberalisation. While the Uruguay Round on multilateral trade negotiations has been a principal focus, Australia has taken the opportunity to highlight the contribution which open trading systems can make to economic growth and development and in the resolution of specific issues such as debt.

Australia's membership of the OECD provides a forum in which its views on a broad range of trade and trade related issues can be pursued collaboratively with other industrialised countries.

In response to the emphasis which developing countries have given to international economic issues, Australia participates actively in the economic forums and institutions of the United Nations' system. The United Nations Conference on Trade and Development provides a very useful forum to emphasise the importance of trade liberalisation in the development process.

To complement regional policy perspectives on trade, economic and development issues, Australia has been actively encouraging the strengthening of the dialogue between OECD and Dynamic Asian Economies (Republic of Korea, Singapore, Hong Kong, Taiwan, Malaysia and Thailand). Also at a regional level Australia has been active in the Economic and Social Commission for Asia and the Pacific (ESCAP) in order to define more clearly the role and responsibilities of that organisation for broadly based development activities and to ensure the most effective use of resources.

Law of the Sea

Australia participated in all sessions of the Law of the Sea Conference, the largest and potentially the most important conference in the history of the United Nations, involving major strategic, economic, transport, scientific and environmental issues. The UN Convention on the Law of the Sea opened for signature on 10 December 1982 and Australia signed that day. It had attracted 158 other signatures by the time it closed for signature two years later. The Convention will enter into force twelve months after it receives 60 ratifications or accessions. As of February 1992 there were 51 ratifications/accessions. The text includes articles on the system of exploration and exploitation of the deep seabed beyond the limits of national jurisdiction; extension of the territorial sea to 12 nautical miles; establishment of coastal state sovereign rights in the living and non-living resources of an 'exclusive economic zone' of 200 nautical miles; recognition of coastal state sovereign rights over the exploration and exploitation of the natural resources of the continental shelf, defined in terms of the natural prolongation of the land-mass; protection and preservation of the marine environment; marine scientific research; and the settlement of disputes. Rights of freedom of navigation and passage through straits and archipelagos, which are important to trading nations such as Australia, are also recognised. A preparatory commission for the establishment of the International Seabed Authority and its various organs has been meeting biannually since 1983. In addition, the Secretary-General of the United Nations has recently been chairing consultations aimed at resolving some outstanding issues regarding deep seabed exploitation. Australia has been an active participant in both the Preparatory Commission and the Secretary-General's consultations.

Antarctica

Australia has had a long association with Antarctica commencing with early expeditions and continuing with an active scientific program. Antarctica's importance to Australia derives from its geographical proximity, the history of Australian involvement there and Australian administration of the Australian Antarctic Territory. Australia maintains three permanent bases in the Territory; at Casey, Davis and Mawson (as well as one on Macquarie Island). *See* also the chapter on Territories of Australia.

As one of the twelve original signatories, Australia attaches particular significance to the 1959 Antarctic Treaty, which serves important Australian scientific, environmental and security interests. Antarctic Treaty Consultative Meetings (ATCM) are held about every two years in one of the Consultative Party States. Australia was last the host in 1983 for the twelfth meeting. The sixteenth ATCM was held in Bonn from 7 to 18 October 1991. There are now

40 governments which are parties to the Antarctic Treaty. Of these 26 are Consultative Parties entitled to participate fully in Consultative Meetings.

Hobart is host to the Commission for the Conservation of Antarctic Marine Living Resources established by a Convention adopted in Canberra in 1980. The Commission and its Scientific Committee meet annually. The Commission is the only international organisation based in Australia.

On 22 May 1989 the Australian Government announced that it was opposed to mining taking place in Antarctica and it would not sign the Convention on the Regulation of Antarctic Mineral Resource Activities (CRAMRA) but that it would pursue the negotiation of a comprehensive environmental protection regime for Antarctica. On 18 August 1989 the Australian and French Prime Ministers announced that Australia and France would pursue this initiative jointly.

Following consideration of the joint Australia/France proposal, ATCM XV (October 1989) recommended the establishment of Special Consultative Meeting XI (SCM XI) to explore and discuss all proposals relating to the comprehensive protection of the Antarctic environment and its dependent and associated ecosystems. A series of SCM XI Sessions were held in Chile and Madrid. Consensus was reached in July 1991 on a draft Protocol on Environmental Protection to the Antarctic Treaty which will prohibit mining. The negotiations were concluded and the Protocol opened for signature in Madrid on 4 October 1991. When fully implemented the Protocol will establish a comprehensive regime for assessing the environmental impact of activities in Antarctica and specific guidelines for waste disposal, marine pollution and the conservation of fauna and flora.

Treaties

The texts of bilateral and multilateral treaties to which Australia is a party are printed in the *Australian Treaty Series* (ATS) when they enter into force. Australia's current position in regard to individual treaties may be ascertained by referring to the *Australian Treaty List* (ATS 1989 No. 38) which was up-to-date at 31 December 1989, and supplements to the List which appear annually in *Treaty Action* (No. 1 of ATS each year). Monthly updates are contained in the Department of Foreign Affairs and Trade publication *Backgrounder*.

In addition, the texts of multilateral treaties in the negotiation of which Australia has participated but to which it has yet to become a party are printed in annual volumes of *Select Documents on International Affairs.* The foregoing publications are available from Commonwealth Government Bookshops, except *Backgrounder* which is available from the Department of Foreign Affairs and Trade, Canberra.

Cultural relations

The Department of Foreign Affairs and Trade administers a program of cultural relations overseas. This program supports Australian foreign policy and economic objectives through cultural activities and exchanges. These include tours overseas of all types of performing and visual arts, promotion of Australian studies, sport exchanges, film screenings, visits to Australia by people able to facilitate cultural exchange and activities in support of the commercial marketing of Australian culture overseas. Formal priorities have been established for the program, with major emphasis being given to countries in Asia, the Pacific and North America.

The Department collaborates closely with other departments, institutions and agencies in the development of its program. The Department seeks to build up programs which will increase understanding and comprehension overseas of Australian society and culture, and thus help foster a favourable environment for the promotion of foreign policy goals. At the same time it seeks to promote professional opportunities for Australian practitioners in all cultural and sporting fields.

The Department also provides secretariats for the Australia–China Council, the Australia Japan Foundation, the Australia New Zealand Foundation, the Australia–Indonesia Institute, and the Australia Abroad Council.

Consular services and passports

The Department is responsible to the Minister for Foreign Affairs and Trade for the protection and welfare of Australian citizens and their interests overseas. Consular services to the Australian public are available from Australian diplomatic and consular posts throughout the world.

In recent years, the service has been expanded through arrangements with Canada and the introduction of the Honorary Consul Program.

The Australia Canada Consular Sharing Agreement, signed in 1986, was extended to a larger range of countries in 1989. The agreement enables Australian citizens to obtain consular assistance from Canadian diplomatic and consular posts in certain countries where Australia has no representation. The countries where Canada provides consular services to Australians are Norway, Tunisia, Peru, Ivory Coast, Ghana, Ethiopia, Guinea, Tanzania, Senegal, Zaire, Gabon, Morocco and Cameroon. Australia reciprocates with the provision of consular services to Canadians in Hawaii, Bali, Western Samoa, Solomon Islands, Nauru, Tonga, Vanuatu, Kiribati, Mauritius, Brunei, Myanmar and Cambodia.

Honorary Consuls have been appointed at the following locations: Lae, Papua New Guinea; Guayaquil, Ecuador; Barcelona, Spain; Sante Fe de Bogota, Colombia; Sao Paulo, Brazil; Boston, United States and Kuching, Malaysia. Honorary Consuls will be appointed at twelve additional locations.

In 1990–91, 827,317 passports were issued. 73.6 per cent of all applications were lodged through Australia Post. The passport telephone enquiry service provides country and city residents with equal cost telephone access. In 1990–91, it answered some 465,552 passport and 82,571 other calls. The telephone service also provides the initial point of contact for callers when there is an emergency overseas which might involve Australians, such as occurred during the Gulf crisis in 1990–91.

AUSTRALIAN OVERSEAS AID PROGRAM

The objective of the Australian Development Cooperation Program is to promote the economic and social advancement of the peoples of developing countries, in response to Australia's humanitarian concerns as well as Australia's foreign policy and commercial interests. In pursuing this objective the program focuses on the surrounding Pacific and South-East Asia regions. A major aim of Australian development cooperation in the 1990s is to assist developing countries to achieve a growth path that is environmentally sustainable and brings benefits to the poor.

In 1991–92, Australia will provide around $1,319 million as official development assistance (ODA). This represents an increase on last financial year of about one per cent in real terms. This level of expenditure is expected to yield an ODA/GNP ratio of 0.35 per cent, the same as in 1990–91. At that level Australia's performance will remain about the average of OECD countries.

New initiatives for 1991–92 include an expanded Environment Assistance Program for developing countries totalling $80 million over four years; an increased Development Import Finance Facility (DIFF) by $14 million to $98 million; and an increase in direct funding for Australian Non Government Organisation (NGOs) of around 10 per cent to $17 million. Funding for the Australian Centre for International Agricultural Research (ACIAR) will also be increased by over $1 million in real terms, as will funding for other international agricultural research activities.

In 1991–92, work will continue on how best Australia's development cooperation program can respond to the growing challenge of poverty. Other initiatives in areas such as health, women-in-development and population will continue.

The Australian Development Cooperation Program is divided into four sub-programs: Country Programs; Global Programs; Corporate Services; and ACIAR. The implementation of most of Australia's development cooperation is carried out on a country program basis. These programs are designed to promote sustainable development in developing countries. They assist governments and regional organisations to plan and implement programs and activities designed to improve economic and social conditions. In 1991–92, $769 million will be provided through Country Programs.

Through Global Programs, Australia contributes to development activities not planned on a country-by-country basis. Activities supported include emergency relief, assistance for refugees, activities undertaken by Australian non-government organisations, the DIFF, development of education and public information, as well as contributions to international development organisations. In 1991–92,

$454 million has been allocated to Global Programs.

The development cooperation program is administered by the Australian International Development Assistance Bureau (AIDAB). Corporate Services, which represents the costs of administering the program, will total $33.8 million in 1991–92. It is estimated that another $43.2 million will be spent by other government departments on activities classified as ODA. In addition, ACIAR, funded under a separate sub-program, has been allocated $18.9 million for international agricultural research.

Country programs

Most country programs are provided on a government-to-government basis. Country programming involves designing a strategy for developing cooperation which meets recipient country needs and Australia's objectives and capacity to assist. Individual country programs are worked out in annual discussions with recipient countries. Within Country Programs support is also provided to individual countries through regional organisations and multi-country activities.

In financial terms, the most important forms of development cooperation through country programs are project aid, education and training, food aid and commodity assistance.

Projects supported by Australia range from large-scale, long-term, integrated regional development programs to small-scale village level projects. Projects involve assistance to develop the recipient country's physical capital (e.g., bridge construction in Indonesia), the provision of technical assistance to enhance local expertise, (e.g., forestry assistance in Nepal and curriculum development in Vanuatu), or more direct poverty alleviation projects (e.g., income generation for minority nationality areas in China).

The majority of education and training activities occur within Australia, either at colleges and universities, or at AIDAB's Centre for Pacific Development and Training. Australia also undertakes aid activities in the education sector of developing countries and often provides training assistance as elements of projects. Recipient governments are encouraged to identify education requirements which relate to their national development priorities in areas where Australia can offer relevant expertise.

Australia continues to be one of the world's largest providers of food aid and budgets for a minimum of 300,000 tonnes of wheat or its equivalent each year as food aid to developing countries. This is in accordance with Australia's treaty commitment under the Food Aid Convention of the International Wheat Agreement. In 1990–91, Australia exceeded this commitment providing 380,000 tonnes of wheat (or its equivalent in other grains), an increase of 50,000 tonnes on the previous year. This was largely due to the lower cost of wheat.

The Commodities Assistance Program (CASP) involves the provision of Australian manufactured goods to developing countries in the South Pacific, Southern Africa and Indian Ocean regions. Under this program, commodities are purchased for the recipient government to use in development activities or for resale to raise funds for the implementation of development activities.

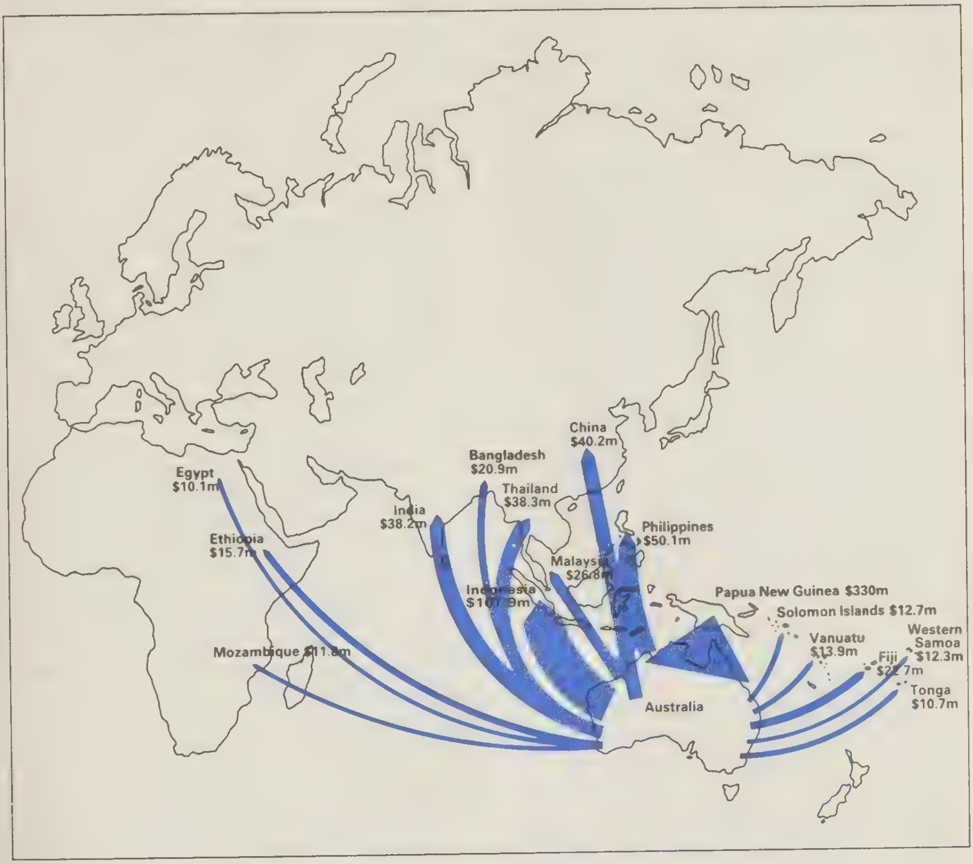
TOTAL AUSTRALIAN AID FLOWS TO MAJOR RECIPIENTS, 1990–91(a)

Country	*$ million*
Papua New Guinea	330.0
Indonesia	107.9
Philippines	50.1
China	40.2
Thailand	38.3
India	38.2
Malaysia	26.8
Fiji	22.7
Bangladesh	20.9
Ethiopia	15.7
Vanuatu	13.9
Solomon Islands	12.7
Western Samoa	12.3
Mozambique	11.8
Tonga	10.7
Egypt	10.1
Laos	8.4
Cambodia	8.3
Zimbabwe	6.8

(a) This includes assistance provided under both Country Programs and Global Programs.

Source: Department of Foreign Affairs and Trade.

AUSTRALIAN AID FLOWS TO MAJOR RECIPIENTS,1990–91


China
$40.2m
Bangladesh
$20.9m
Thailand
$38.3m
Egypt
$10.1m
India
$38.2m
Philippines
$50.1m
Ethiopia
$15.7m
Malaysia
$26.8m
Indonesia
$101.9m
Papua New Guinea $330m
Solomon Islands $12.7m
Western
Samoa
$12.3m
Vanuatu
$13.9m
Fiji
$22.7m
Mozambique $11.8m
Tonga
$10.7m
Australia

Source: Department of Foreign Affairs and Trade.

Papua New Guinea and the South Pacific

Development cooperation with PNG is aimed at promoting sustainable economic growth with equity. The Australian and PNG Governments have agreed to progressively reducing the overall level of Australian assistance and moving away from budget support to programmed activities.

PNG receives the largest share of the Australian aid program. In 1991–92, PNG will receive $323.2 million, which represents almost one quarter of the total Australian development cooperation program. Most of this allocation is in the form of untied budget support. As a proportion of the program, programmed activities have continued to increase from 3 per cent in 1987–88 to almost 10 per cent in 1991–92.

Australia maintains a strong commitment to assisting the countries of the South Pacific. In 1991–92 country programs to the region will total around $92 million. The objective of Australian development cooperation is to promote the equitable economic and social development of South Pacific island states, consistent with Australia's foreign policy and commercial interests, while paying special attention to the needs of small island economies.

South-East Asia

Australian development cooperation activities to the South-East Asian region have traditionally emphasised rural development, infrastructure upgrading and education. In poor areas especially, poverty alleviation has been a particular focus. However, as countries in the region have approached middle-income status Australian development cooperation programs have become more commercially oriented.

Indonesia, with an allocation of $57 million, is the largest recipient of assistance through country programs in the region. Other major recipients include the Philippines ($37 million) and Thailand ($25 million). Support is also provided for regional organisations and programs like the ASEAN–Australian Economic Cooperation Program (AAECP).

The Indo–China regional program provides funding for cooperative activities through international development agencies and NGOs with Vietnam, Cambodia and Laos. The focus of the program is humanitarian and it is aimed at meeting priority needs in health, agriculture and education sectors.

Other regions

Australian development cooperation to regions outside the South Pacific and South-East Asia generally cover a narrower range of development activities than is the case for programs to countries closer to Australia. Development cooperation with these other regions will total about $103 million in 1991–92.

The largest allocation for a group of countries is that for Southern Africa, where $40 million has been allocated in 1991–92. This represents the second annual allocation of a three year pledge of $110 million by the Australian Government. Other countries benefiting from Australian development cooperation in 1991–92 include China ($17 million), Bangladesh ($13 million) and India/Pakistan ($7 million).

It is important to note that country program activities represent only one Australian response to the development needs of these countries. For example, China and India also receive significant amounts of funding through the DIFF. Other countries such as those in the Horn of Africa receive substantial amounts of emergency aid. Other countries are primary beneficiaries of development assistance provided by international agencies to which Australia contributes.

Global programs

International development organisations and programs

Australia supports a range of key international financial and development institutions as part of our obligations as a good international citizen. These organisations can undertake development cooperation activities on a scale that might not be possible for Australia as a single donor. Australia's active participation in these agencies also enable Australia to have a policy influence on each institution's activities. In addition, cooperation with international development institutions can lead to more complementary bilateral programs that benefit both recipient countries and Australian business. Participation may thus provide greater opportunities for Australian business than are available just under a bilateral program.

In 1991–92 contributions from AIDAB administered funds will total about $266 million. Australia contributes toward a range of United Nations organisations, international financial institutions, international agricultural research activities, international health programs and international non-government organisations. These include the World Bank ($110 million), the Asian Development Bank ($50 million), the World Food Program ($45 million) and the United Nations Development Program ($17 million).

Emergencies and refugees

Emergency assistance remains a key part of Australia's development cooperation program. In 1990–91, the scope and number of crises throughout the world were especially great and Australia responded to more than 40 emergency and refugee relief situations at a total cost of more than $64 million. Types of assistance include food aid, temporary shelter materials, medical supplies and accountable cash grants. Australia also supports the general programs of a number of international relief agencies by making contributions to their core budgets. These include the UN High Commissioner for Refugees, the UN Relief and Works Agency and the International Committee of the Red Cross. Australia also provides assistance for disaster preparedness and mitigation measures, especially in the South Pacific.

Community and commercial programs

A wide range of Australian community interests are reflected in development cooperation activities. The participation of the business community, non-government organisations, academic and other professional groups in the program is important to inform the wider community of conditions in developing countries. It also enhances the understanding and support of the Australian public of Australia's development cooperation activities.

In 1991–92, the Government will provide about $17 million directly to non-government organisations (NGOs), an increase of about 10 per cent on the last financial year. These funds subsidise development activities designed and implemented by the NGOs themselves including overseas development projects, volunteer programs, emergency relief assistance and some development education activities. Overall, NGOs will cooperate with AIDAB in implementing an estimated $60 million in development cooperation activities.

The direct participation of the academic and research community in the program is generally encouraged by the Government through the support of development oriented seminars and through the provision of funds to the National Centre for Development Studies at the Australian National University in particular.

The involvement of Australian commercial organisations is a feature of Australia's development cooperation program. The quality of development assistance is increased by using efficient Australian suppliers. The program also offers substantial returns to Australian firms — each dollar provided as aid is estimated to provide well over a dollar of business for Australian firms. AIDAB communicates widely with commercial organisations in order to increase their understanding of commercial opportunities under the program.

The Development Import Finance Facility (DIFF) provides opportunities for Australian businesses to supply developmentally important goods and services to developing countries. Mixed credits combine grant aid funds with commercial export credits. DIFF helps offset the disadvantages facing Australian industry in developing countries when competing with aid subsidised finance packages provided by other governments. From 1980 to July 1991, 56 projects in 12 countries were funded involving DIFF payments of $360 million and supporting total export contracts for Australia of over $1 billion. In 1991–92, DIFF funding will increase by $9 million to $93 million.

AUSTRALIAN REPRESENTATION OVERSEAS

As at 30 June 1991, Australia maintained the following diplomatic and consular representation overseas (full details of these missions are available from the Department of Foreign Affairs and Trade, Canberra, ACT, 2600).

Country	*Post*
Argentina	Buenos Aires
Austria	Vienna
Bangladesh	Dhaka
Belgium	Brussels
Brazil	Brasilia
Brunei	Bandar Seri Bagawan
Cambodia	Phnom Penh#
Canada	Ottawa
Chile	Santiago
China	Beijing
	Shanghai*
Cyprus	Nicosia
Czechoslovakia	Prague
Denmark	Copenhagen
Egypt	Cairo
Federal Republic of Germany	Berlin*
	Bonn
Fiji	Suva
France	Paris
New Caledonia	Noumea*
Greece	Athens
Hong Kong	Hong Kong*
Hungary	Budapest
India	New Delhi
	Bombay*
Indonesia	Jakarta
	Bali**
Iran	Tehran
Ireland	Dublin
Israel	Tel Aviv
Italy	Rome
Jamaica	Kingston
Japan	Tokyo
Jordan	Amman
Kenya	Nairobi
Kiribati	Tarawa
Korea, Republic of	Seoul
Laos	Vientiane
Malaysia	Kuala Lumpur
Malta	Malta
Mauritius	Port Louis
Mexico	Mexico City
Micronesia, Federated States of	Pohnpei
Myanmar (Burma)	Rangoon
Nauru	Nauru
Nepal	Kathmandu
Netherlands	The Hague
New Zealand	Wellington
Nigeria	Lagos
Pakistan	Islamabad
Papua New Guinea	Port Moresby
Philippines	Manila
Poland	Warsaw
Portugal	Lisbon
Russia	Moscow
Saudi Arabia	Riyadh
Singapore	Singapore
Solomon Islands	Honiara
South Africa	Pretoria
Spain	Madrid
Sri Lanka	Colombo
Sweden	Stockholm
Switzerland	Berne
Syria	Damascus
Thailand	Bangkok
Tonga	Nuku'alofa
Turkey	Ankara
United Kingdom	London
United States	Washington
	Chicago*
	Honolulu*
	Houston*
	Los Angeles*
	New York*
	San Francisco*
Vanuatu	Port Vila
Vatican	Holy See
Venezuela	Caracas
Vietnam	Hanoi
Western Samoa	Apia
Yugoslavia	Belgrade
Zimbabwe	Harare

Australia also maintained five separate permanent missions in:

New York — UN
Geneva — UN
Geneva — Disarmament
Geneva — GATT
Paris — OECD

The Australian Trade Commission maintained trade missions with diplomatic or consular status in the following cities: Auckland*, Frankfurt*, Istanbul*, Milan*, Osaka* and Toronto*.

The Department of Immigration, Local Government and Ethnic Affairs maintained offices with consular status in Manchester**, Edinburgh** and Vancouver**.

*Consulate-General
**Consulate
#Resident mission

Chapter Five

Defence

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Australia enjoys a very good security environment. Relationships with its allies and neighbours are sound and it faces no identifiable military threat. As well, an aggressor faces the problem of crossing the waters surrounding Australia.

Because Australia is a large island continent, to invade and conquer Australia, an aggressor would have to possess considerable sea, land and air forces. In the current security environment, such a threat is considered unlikely. In the foreseeable future, actions against Australia would more likely be small-scale military actions with limited military, political and economic objectives.

POLICY

The Australian Government's approach to defence is to make the most of Australia's geographic environment while insuring against the future. This means developing and maintaining a capability for the independent defence of Australia and its interests (self-reliance); and promoting stability and security in our region.

This approach recognises not only Australia's unique geographic environment, but also its regional and global relationships as factors in defence policy. The policy is explained more fully in the policy information paper *The Defence of Australia — 1987.*

The Defence organisation is only one of the instruments available to the Government in maintaining a positive secure Australia. Through its various activities, the Defence organisation complements and supports activities conducted in the diplomatic, economic, social and commercial fields.

THE DEFENCE ORGANISATION

The mission of the Defence organisation — which comprises the Australian Defence Force (ADF) and the Department of Defence — is to protect and promote the security of Australia and its people against armed attack or other pressures.

Control of the Defence organisation is exercised by the Minister for Defence, assisted by the Minister for Defence Science and Personnel. A Parliamentary Secretary assisting the Minister for Defence was also appointed in late December 1991. Their principal advisers are the Chief of the Defence Force (CDF), who commands the ADF, and the Secretary of the Department of Defence, who administers that Department. The CDF and the Secretary have complementary powers and responsibilities, which they exercise cooperatively in some areas.

The ADF is the uniformed element of the Defence organisation, and consists of the Royal Australian Navy (RAN), the Australian Army, and the Royal Australian Air Force (RAAF). The ADF is structured and maintained to deal with the types of threats that could arise in the short term, whilst providing a suitable basis for expansion should a major threat arise over the longer term.

The ADF also has non-defence functions. ADF resources are used for civil tasks of national importance — such as coastal surveillance, fisheries protection, and search and rescue. They are also made available to assist State Governments, the governments of foreign countries, and the United Nations in such roles as peacekeeping, natural disaster relief (for the States only), and counter terrorism.

The Department of Defence is the civilian element of the Defence organisation. It supports the Government in the development, implementation and evaluation of defence policy and programs. It provides policy, procurement, scientific, logistic, financial and other support services to the ADF, and a range of services to government agencies and industry.

PLANNING

To provide a management framework for its activities, the Defence organisation works to a ten year planning 'horizon'. Proposals are brought forward and examined in detail prior to submission to the Government for consideration as new policy initiatives. This is a rolling horizon, reviewed each year in the light of changing strategic circumstances, government directions, changing economic prospects and other relevant forces.

The primary document which explains current Defence plans is the Defence Corporate Plan. The Plan is updated each year and sets out corporate goals and strategies for the next five years, with particular emphasis on the 12 months immediately following. The Plan specifies what Defence aims to achieve and identifies criteria for assessing whether it has achieved them. Financial planning is contained in annual Program Performance Statements which deal with the defence budget.

The Defence Report, also published annually, is a report to the Minister for Defence on the activities of the Defence organisation over the previous financial year.

Changing directions

As a result of the 1987 policy information paper and subsequent reviews (the Force Structure Review, the Wrigley Report, the Defence Regional Support Review, and reviews of Defence logistics), there have been — and will be — a number of significant changes in the Defence organisation by the year 2000.

They are all aimed at making the best use of defence resources, and in particular improving the combat capability of the ADF. A number of them will also increase the ADF presence in the west and north of Australia.

The most significant changes are outlined below. More detail may be found in three documents listed in the bibliography: the Force Structure Review, the Ready Reserve Program, and the Report of the Interdepartmental Committee on the Wrigley Review — *The Defence Force and the Community*.

Defence planning for the 1990s aims to achieve a balance between investment in new and improved capabilities, technology and infrastructure, and investment in personnel training. It places a heavy emphasis on improving combat capability, with the need for a significant level of investment in new equipment and facilities to meet strategic priorities. A reduction in the numbers of Regular service personnel and civilians will reduce costs and allow the re-allocation of resources to areas of greater priority.

The future split of the Defence budget between investment, operating costs and personnel is expected to be about 30 per cent, 30 per cent and 40 per cent respectively.

The Navy is to acquire new surface combatants and submarines. By the beginning of next century, there will be six Collins Class submarines based at HMAS Stirling in Western Australia. As well, the Navy will have 16 destroyers/frigates and 12 offshore patrol vessels. Current planning is for four frigates or destroyers to be based at HMAS Stirling.

More Regular Army units will be based in the north of Australia, with the Second Cavalry Regiment moving to Darwin in 1993. An armoured regiment with one Regular Army tank squadron, a composite aviation squadron, and an infantry battalion will also move to Darwin by the year 2000.

By 1996, a new form of reserves — the Ready Reserve — will replace most of the Regular combat and combat support units in southern Queensland.

Ready Reservists receive 12 months initial full-time training and four years part-time training of about 50 days per year. After their initial 12 months full-time training, Ready Reserves will be eligible for educational and job-search assistance.

The Air Force has recently completed a program — begun in the 1980s — of re-equipping and re-deploying its fighter force. Two squadrons of F/A-18s are now based at RAAF Tindal in the Northern Territory. RAAF Tindal is complemented by three northern Australian 'bare bases'. 'Bare bases' are forward locations to which aircraft can be deployed as required. These are at Exmouth (RAAF Base Learmouth), Derby (RAAF Base Curtin), and the planned base at Weipa (RAAF Base Scherger). Combined with the air-to-air refuelling capacity now operational in the Air Force (4 B707 tankers), the bare bases give the F/A-18s considerable operational flexibility and endurance in northern Australia.

DEFENCE PROGRAMS

The Defence organisation, its resources and activities are divided into the following eight major programs.

Forces Executive

The objective of this Program is to assist the formulation of policy relating to operations and force development.

The major activities of the Program include providing direction to the ADF in the areas of military policy, planning, operational training, intelligence, communications, force development and logistics. Integral to this is direction on capability development and priorities in accordance with government strategic and financial guidance. The Program provides:

- support of joint forces, including Headquarters, Joint Forces Australia (when raised); and Maritime, Land and Air Commands;
- formulation of joint military policy on standards of health, recruiting, reserves, welfare, training, morale, discipline, public information and explosives safety; and
- coordinating the implementation of the Force Structure Review.

The Program also comprises policy oversight and funding of the Natural Disasters Organisation, Defence housing, the Defence Forces Retirement and Death Benefits Scheme and the Military Superannuation and Benefits Scheme, and of the joint training establishments (the Australian Defence Force Academy), the Joint Services Staff College, and the Australian Defence Force Warfare Centre).

Navy

The objective of the Navy is to provide naval forces capable of conducting effective maritime operations in the pursuit of Australia's interests using regular and reserve forces. These forces must be capable of joint (i.e., in conjunction with the other two Services) and combined (i.e., in conjunction with our allies) operations.

Army

The objective of the Army is to provide land forces capable of conducting effective land operations in pursuit of Australia's interests using both regular and reserve forces. They must be capable of operating as part of joint forces and/or as part of combined forces, and be able to conduct long and dispersed operations in harsh terrain where the existing infrastructure (such as communications) and resources (such as fuel) are sparse. The Army must also be capable of expansion as required, and is required to assist the civil authorities in resolving high risk terrorist incidents.

Air Force

The objective of the RAAF is to provide forces capable of conducting effective strategic and tactical air operations as an independent force or as part of a joint or combined force, and to expand if required.

The RAAF also conducts maritime surveillance patrols in Australia's area of interest to protect shipping, offshore territories and resources; provides air lift and offensive air support to the other Services; participates in cooperative activities with countries in our region; and provides assistance to the civilian community and to neighbouring countries in times of natural disasters.

The following tables of flying hours for two types of aircraft, the F/A-18 Hornet fighter and the C130 transport aircraft, provides an indication of RAAF flying activities.

F/A-18 FLYING HOURS, 1990-91

	Planned	*Achieved*
National tasks	416	408
Defence support	2,167	1,565
Operational training	4,661	5,385
Army support	70	55
Navy support	533	74
Gulf conflict	—	434
Conversion/continuation training	3,734	4,126
Total	**11,581**	**12,047**

Source: Department of Defence.

C130 FLYING HOURS, 1990-91

	Planned	*Achieved*
National tasks	1,394	1,320
Assistance to the civil community		
Search and rescue	—	254
Medical evacuation	—	77
Flood relief	—	99
Other	—	230
Defence support	7,436	5,957
Army support	2,030	1,672
Navy support	653	642
Scheduled services	1,850	2,858
VIP flights	—	58
Gulf conflict	—	504
Conversion/continuation training	4,637	4,102
Total	**18,000**	**17,773**

Source: Department of Defence.

Strategy and Intelligence

The objective of this Program is to provide the Government with the defence policy options most relevant to Australia's strategic circumstances to ensure that defence programs and force structure are consistent with the Government's strategic policies and priorities. It also provides intelligence services for Defence and other government departments and organisations.

Strategy and Intelligence guides, directs and administers programs central to Defence organisation planning and to Australia's international defence relations, including intelligence functions, Defence Cooperation and New Major Investment (equipment and facilities). Several Strategy and Intelligence functions are carried out on behalf of both the Secretary and the Chief of the Defence Force.

Acquisition and Logistics

The objective of this Program is to meet the Government's plans for the development of Australia's defence capabilities by purchasing major equipment and facilities to meet operational requirements. The Program also provides logistic support for the ADF and encourages the involvement of Australian industry in the country's defence.

Australia is proceeding with a program of major defence acquisitions costing more than $25 billion over the coming decade and beyond, and the Acquisition and Logistics Program is central to these initiatives.

Overall costs for the majority of the 108 major projects currently underway are on target. The following table shows expenditure for selected major items of capital equipment for 1990–91.

EXPENDITURE FOR SELECTED MAJOR ITEMS OF CAPITAL EQUIPMENT, 1990–91
($ million)

Project	*Estimate*	*Actual*
Collins class submarines	561.6	591.0
ANZAC ships	324.7	282.4
Australian frigates	169.3	179.3
F/A-18 Hornet fighter	149.2	122.4
Seahawk helicopters	81.7	65.8
F-111 avionics update	64.8	62.9
HF and VHF single channel radios (Project Raven)	59.3	56.9
Army light field vehicles	50.4	42.7
Small arms replacement project	47.8	23.2
Destroyer modernisation	42.6	46.9
Black Hawk helicopters	40.0	27.2
Over-the-horizon radar	37.7	33.0
Frigate construction	32.4	31.4
PC9 basic flying trainer	31.7	29.7

Source: Department of Defence.

Budget and Management

The objective of the Program is to develop policy and deliver corporate services that make the most of defence resources, particularly in resource management, financial systems and accountability; civilian and Service manpower resource allocation; civilian personnel management and industrial relations; program evaluation and management audit; personnel and physical security; and legal services.

In general, this Program seeks to improve the way Defence uses its resources to meet the Defence Organisation's planning strategies, particularly those relating to Defence support services, resources and personnel management.

Science and Technology

This Program is based on the activities of the Defence Science and Technology Organisation (DSTO). Its objective is to enhance Australian defence capabilities, to contribute to the development and implementation of Australian defence policies, and to provide assistance to the defence organisation and Australian industry, through the application of science and technology.

There are six sub-programs with the following areas of responsibility:

- The Aeronautical Research Laboratory — aircraft structures; aircraft materials; flight mechanics and propulsion; and avionics and aircraft systems.
- The Electronics Research Laboratory — information technology; electronic warfare; and communications.
- The Materials Research Laboratory — materials; protective chemistry; explosives and ordinance; and underwater systems.
- The Surveillance Research Laboratory — opto-electronics; high frequency radar; and microwave radar.
- The Weapons Systems Research Laboratory — combat systems; guided weapons; and maritime systems.
- The DSTO Central Office provides corporate science policy and management, and is the high level interface between this Program and the other Programs.

DSTO provided extremely valuable support to ADF elements during the Gulf War. The support included evaluation of the threat to Navy ships from Iraqi weapons and providing counter-measures. A member of DSTO led the first UN chemical weapon inspection team into Iraq following the cessation of hostilities.

During the year, DSTO also became involved in the commercial application of its research product as a result of a drive to become more industry-orientated. Included in this were items as diverse as modifications to aircraft engines to reduce smoke trails, and radar target generations for test and training on F/A-18 Hornet fighters.

AUSTRALIA'S INVOLVEMENT IN THE GULF WAR

The Gulf War saw Australia involved in military operations for the first time since the Vietnam War. The first Royal Australian Navy (RAN) Task Group deployed at three days' notice from Sydney in mid-August 1990 and entered the Area of Operations on 3 September 1990. The Task Force contributed significantly to UN sanctions enforcement operations as part of the Multi-National Naval Force and was actively involved in surveillance and boarding operations against potential and actual Iraqi sanction breakers. The Task Group, comprising *HMAS Darwin*, *HMAS Adelaide* and *HMAS Success*, remained at a high level of operational readiness in anticipation of possible retaliation from Iraqi forces.

The second RAN Task Group comprising *HMAS Brisbane* and *HMAS Sydney* relieved *HMAS Darwin* and *HMAS Adelaide* on 3 December 1990. Hostilities began on 17 January 1991 and the Australian ships remained at sea for 47 days throughout the war. *HMAS Success* departed the Arabian Gulf on 22 January 1991 and was replaced by *HMAS Westralia* on 5 February 1991. Following the cease-fire at the end of February 1991, *HMAS Brisbane* and *Sydney* left the Gulf on 22 March 1991. Australia still maintains a presence in the Gulf.

In addition to the ships, Clearance Diving Team 3, comprising 23 members, deployed to the Gulf to assist in mine-clearance operations, arrived on 31 January 1991. The team was involved in mine-clearance operations in a number of Gulf ports — these operations were dangerous and hampered by heavy oil slicks and the lack of normal support facilities. In total, the team rendered safe 23 sea mines and large quantities of rockets, mortar bombs, flares, grenades, detonators and demolition charges. Also, an Australian Defence Force medical team of 20 personnel (19 from Navy) deployed to the Gulf in mid-September 1990, joined the American hospital ship *USNS Comfort* for a three-month period. Two additional medical teams relieved the first team in January 1991 and were subsequently withdrawn after the UN cease-fire.

RESOURCES

Budget and expenditure

The 1991-92 Defence budget of $9,435 million represents an increase of $369 million or 4.1 per cent over 1990-91 and maintains the current real level of Defence outlays.

The Government has set Defence planning guidance at zero per cent real growth over the 1992-95 period. This level of guidance accords with the planning base adopted for the Force Structure Review and should allow for the achievement of programmed objectives of that review and other major Defence efficiency initiatives.

Defence spending is forecast to be 9.3 per cent of Commonwealth outlays for 1991-92, compared with 9.5 per cent in 1990-91. The Defence share of GDP for 1991-92 is estimated to be 2.4 per cent, the same as in 1990-91.

The proportion of Defence expenditure spent in Australia continues at a high level reflecting greater local industry involvement and increased self-reliance. Some 87 per cent of total Defence expenditure is estimated to be spent in Australia during 1991-92, including 59 per cent of capital equipment expenditure. Current levels of expenditure compare favourably with the 76 per cent spent in Australia during 1984-85, which included only 25 per cent of all capital equipment expenditure.

The following table shows the actual expenditure by each Program of the Department of Defence in 1990-91.

DEFENCE EXPENDITURE, 1990–91

Program	*$'000*
Forces Executive	970,723
Navy	1,414,819
Army	1,905,687
Air Force	1,566,991
Strategy and Intelligence	179,101
Acquisition and Logistics	2,347,342
Budget and Management	466,092
Science and Technology	215,004
Total	**9,065,759**

Source: Department of Defence

Personnel

Although the Defence organisation has its policy and administrative centre in Canberra, most of its personnel are located in some 600 units and establishments throughout Australia.

The ADF has some 69,000 Regular personnel and 30,000 Reserves, while the Department of Defence has some 25,000 civilians.

Of the civilian employees in the Defence organisation, some 14,500 work directly for the ADF, some 3,500 are in the Defence Science and Technology Organisation (DSTO), over 2,500 are in regional offices, and some 2,500 are in the central office. There are about 1,000 in out-rider organisations or overseas.

DEFENCE SERVICE AND CIVILIAN PERSONNEL BY EMPLOYMENT CATEGORY AND SEX
AS AT 30 JUNE 1991

	Males	*Per cent*	*Females*	*Per cent*
Navy				
Trained Force				
Officers	2,109	13.3	278	1.7
Other Ranks	10,247	64.5	1,473	9.3
Training Force				
Officers	467	2.9	146	0.9
Other Ranks	742	4.7	102	0.6
Apprentices	314	2.0	16	0.1
Total	*13,879*	*87.3*	*2,015*	*12.7*

. . continued

DEFENCE SERVICE AND CIVILIAN PERSONNEL BY EMPLOYMENT CATEGORY AND SEX AS AT 30 JUNE 1991 — *continued*

	Males	*Per cent*	*Females*	*Per cent*
Army				
Trained Force				
Officers	4,097	13.2	427	1.4
Other Ranks	21,012	67.5	2,103	6.8
Training Force				
Officers	643	2.1	94	0.3
Other Ranks	1,644	5.3	288	0.9
Apprentices	799	2.6	36	0.1
Total	*28,195*	*90.5*	*2,948*	*9.5*
Air Force				
Trained Force				
Officers	3,133	14.2	403	1.8
Other Ranks	13,758	62.2	2,662	12.0
Training Force				
Officers	505	2.3	124	0.6
Other Ranks	988	4.5	246	1.1
Apprentices	295	1.3	7	—
Total	*18,679*	*84.4*	*3,442*	*15.6*
Australian Defence Force				
Trained Force				
Officers	9,339	13.5	1,108	1.6
Other Ranks	45,017	65.1	6,238	9.0
Training Force				
Officers	1,615	2.3	364	0.5
Other Ranks	3,374	4.9	636	0.9
Apprentices	1,408	2.0	59	0.1
Total	*60,753*	*87.8*	*8,405*	*12.2*
Civilians				
Senior Executive Staff	111	0.4	5	—
Other Staff	17,057	68.2	7,833	31.3
Total	*17,168*	*68.7*	*7,838*	*31.3*
Reserves				
Navy	1,396	4.7	210	0.7
Army	22,025	74.2	4,460	15.0
Air Force	1,311	4.4	268	0.9
Total	*24,732*	*83.4*	*4,938*	*16.6*

Source: Department of Defence.

Women in the Defence Forces

On 30 May 1990, the Minister for Defence Science and Personnel announced that women serving in the Australian Defence Force (ADF) will be eligible to serve in combat-related positions.

Combat-related positions include those which require a person to work close to combat operations such as in transport, resupply, intelligence and communications. In opening up these fields, women have been given the opportunity to move away from careers in the traditional support areas. They have become eligible for positions in 59 per cent of the Army, 94 per cent of the Navy and 94 per cent of the Air Force in open competition. This policy made it possible for seven women to serve on HMAS Westralia during her deployment to the Gulf conflict.

The exemption from combat postings will still apply and excludes women from the infantry, artillery, armour and combat engineers. Women are also barred from serving on submarines, the defence air guard and combat aircraft such as F/A-18s, F-111s and P-3Cs. This exemption is reflected in the Ready Reserve Scheme, which has limited places for women as the majority of Ready Reserve positions are in combat units.

All three services have opened up new fields of employment for women. The Army is planning to appoint the first woman Commanding Officer of a battalion size unit during 1991–92. Since the change in policy, 170 women have been posted to combat related positions such as radio operators. They will also be employed in the Corps of Royal Australian Engineers and in the Operational Deployment Force. This Force is held at a higher level of readiness and is largely based in Townsville. The Navy is opening up all surface ship positions to women and aims for 500 women to be at sea by 1996. The Air Force are training women as Hercules pilots, engineers and navigators.

The broad picture shows that the moves towards equal opportunity that are occurring in the community are being reflected in the ADF. During 1991, of 882 ADF cadets at the Australian Defence Force Academy in Canberra, 179 (20%) are women (74 Navy, 43 Army and 62 Air Force). At the end of 1990, 13 of the 36 academic and military prizes were awarded to women, including the coveted Commander-in-Chief's Medal.

There has also been a gradual move to a more balanced representation of women among all ranks. Although women represent only a small proportion of senior serving officers (4.8%), the increasing number of women in the ADF, their use in combat-related positions and their tendency to remain for longer periods, should result in this proportion continuing to grow. From July 1984 to March 1991, the number of women in senior officer positions increased from 101 to 219.

The 1990s will see a defence force in which women will have much better career prospects. There is a growing realisation that modern social and political reality demands a more equitable approach and that women are equal to the job.

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DEFENCE COMMUNICATIONS CORPORATE PLAN 1991-2001. This document proposed strategies for ensuring that Defence communications systems can take advantage of new and emerging technologies while continuing to meet current and unforeseen user demands.

THE DEFENCE CORPORATE PLAN. An annual document providing guidance to programs on the basis for program planning.

DEFENCE LOGISTICS REDEVELOPMENT PROGRAM. A program to rationalise supply support and warehousing for the Australian Defence Force.

DEFENCE OF AUSTRALIA 1987. A Government policy information paper tabled in Parliament in 1987.

DEFENCE REGIONAL SUPPORT REVIEW. A review undertaken to recommend the most effective and economical means of providing administrative support to the Australian Defence Force and the Department of Defence in regional areas.

THE DEFENCE REPORT 1990-91. A report to the Minister for Defence published annually on Defence Program achievements, resources and other matters.

THE EQUAL EMPLOYMENT OPPORTUNITY PLAN. A document which seeks to identify and remove unjustified discrimination against women and members of designated groups in their employment and career opportunities.

FORCE STRUCTURE REVIEW. A Government plan for the phased restructuring of the ADF over the next ten years to use allocated resources more effectively.

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Chapter Six

Demography

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The principal source of demographic data is the Census, which in recent times (since 1961) has been conducted at five-yearly intervals. The most recent was in 1991. Results of the 1991 Census, however, were not available for inclusion in this issue of the Year Book. Compulsory registration of births, deaths and marriages also provides valuable information between Censuses, as do the details supplied by incoming and outgoing overseas travellers. In addition, various surveys are conducted from time to time on specific topics. Divorce data are compiled from court records; administrative records provide data on other aspects such as refugees and interstate migration.

Two important pieces of government legislation in the recent past which have had bearing on demographic matters were the repeal in 1967 of the provision in section 127 of the Constitution requiring the exclusion of Aboriginals in reckoning the numbers of people in the population, and the passing of the *Family Law Act 1975* which provided for a single ground for divorce — irretrievable breakdown of marriage — and for nullity of marriage on the ground that the marriage is void.

THE POPULATION OF AUSTRALIA

Size and growth

For an historic perspective of Australia's demographic characteristics *see Year Book Australia 1988.*

The estimated resident population at 30 June 1991 was 17.3 million, an increase of 1.5 per cent over the previous year. The total increase of 250,600 comprised 141,400 from natural increase and 109,200 from overseas migration. The natural increase component was the highest recorded since the early 1970s but overseas migration was down for the second consecutive year from the record levels of 1987–88 and 1988–89 (149,100 and 163,600 respectively).

The 1980s were characterised by a declining rate of natural increase due to the falling birth rate. This was a continuation of the trend prevailing in the 1970s. Figures for 1990 indicate a slight increase in birth rates.

ESTIMATED RESIDENT POPULATION AND COMPONENTS OF GROWTH

		Annual rate of growth (per cent)		
Year ended 30 June	*Population ('000)*	*Natural increase*	*Net migration*	*Total*
1972	13,303.7	1.24	0.58	1.81
1973	13,504.5	1.09	0.43	1.51
1974	13,722.6	0.99	0.61	1.61
1975	13,893.0	0.91	0.33	1.24
1976	14,033.1	0.87	0.15	1.01
1977	14,192.2	0.82	0.41	(a)1.13
1978	14,359.3	0.83	0.44	(a)1.18
1979	14,515.7	0.80	0.38	(a)1.09
1980	14,695.4	0.81	0.52	(a)1.24
1981	14,923.3	0.83	0.81	(a)1.55
1982	15,184.2	0.84	0.86	(a)1.75
1983	15,393.5	0.85	0.48	(a)1.38
1984	15,579.4	0.84	0.32	(a)1.21
1985	15,788.3	0.82	0.47	(a)1.34
1986	16,018.4	0.78	0.64	(a)1.46
1987	16,263.3	0.79	0.74	1.53
1988	16,538.2	0.77	0.92	1.69
1989	16,833.1	0.79	0.99	1.78
1990	17,085.4	0.79	0.71	1.50
1991	17,335.9	0.83	0.64	1.47

(a) The difference between the total and the sum of the component rates is due to distribution of the intercensal discrepancy.
Source: Australian Demographic Statistics (3101.0).

Net overseas migration gain, moderate for most of the seventies, increased sharply at the end of the decade following changes in migration intake targets and Australia's acceptance of a large number of Indo-Chinese refugees as settlers. Very high intakes were recorded in 1980–81 and 1981–82, after which they fell back to previous levels. In the latter half of the 1980s there was a resurgence of overseas migration gains to the record levels mentioned above.

Throughout the last two decades overseas migration gains have been more volatile than natural increase and, because of their size, have set the pattern for trends in total population growth. As both natural increase and overseas migration declined, the total population growth rate dropped from 1.8 per cent at the beginning of the seventies, to 1.1 per cent by 1978–79. Then as overseas migration gains recovered, the growth rate rose. By 1981–82 it was back to 1.8 per cent. The subsequent slump in migration intake, however, resulted in lower total growth rates until the recent resurgence which has led to population growth rates of 1.7, 1.8, 1.5 and 1.5 per cent in years ended June 1988, 1989, 1990 and 1991 respectively.

Population distribution

Most of the Australian population is concentrated in two widely separated coastal regions. By far the largest of these, in terms of area and population, lies in the south-east, stretching in an unbroken crescent from South Australia through Victoria, Tasmania and New South Wales to Queensland. The smaller of the two regions is in the south-west of Western Australia. Neither region ever extends inland by more than two or three hundred kilometres. They are separated by two to three thousand kilometres of sparsely populated country which makes up about three-quarters of the total land area. It comprises the whole of the Northern Territory and parts of all five mainland States.

In both coastal regions the population is further concentrated into capital cities, other major cities and towns. In June 1990, 71.2 per cent of the Australian population lived in the combined State and Territory capitals (including the national capital) and six other major cities of 100,000 persons or more (capital city statistical divisions and statistical districts). The very low population density figures for Australia as a whole (two persons per square kilometre) mask this pattern of population distribution.

With the continuing development of urban industrialisation in the 20th century, capital cities have been the consistent choice for settlement of the majority of overseas immigrants, as well as receiving centres in the general internal movement of population from rural to urban areas which persisted until recent times. This trend towards increasing urbanisation continued until the mid-1970s, after which a slight decline has been recorded. At the 1986 Census 85.4 per cent of the population lived in urban areas. Between the 1976 and 1986 Censuses, the proportion of the population living in rural areas actually increased from 13.9 per cent to 14.5 per cent, while the proportion of State populations living in the capital cities of Sydney, Melbourne and Brisbane declined slightly. Parallel with this has been an emerging trend since the 1970s towards selective rapid growth of smaller coastal towns in Queensland and New South Wales which have favoured the development of retirement, recreation and tourist amenities.

Australia's two dominant population centres — Sydney (3.7 million) and Melbourne (3.1 million) — both in the south-east, accounted for 39.4 per cent of the total population in June 1990. The next largest city is Brisbane (1.3 million). Sydney and Melbourne have traditionally been the favoured ports of entry for overseas arrivals and are the capitals of the two most populous States — New South Wales and Victoria respectively. In these and every other State and Territory the capital city is the largest population centre. Most capitals are many times the size of the next largest town. All capitals, with the exception of the national capital (Canberra) are located on the coast. The capital city of the Northern Territory, Darwin, is the only capital outside the south-eastern and south-western coastal regions.

URBAN–RURAL DISTRIBUTION OF POPULATION AT SELECTED CENSUS DATES(a)
(per cent(b))

Census year	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Aust.*
					URBAN				
1921	67.8	62.3	52.1	60.0	59.3	50.5	36.2	—	62.1
1947	71.9	71.0	59.7	69.4	64.6	58.9	23.4	89.7	68.7
1954	82.6	81.3	73.0	74.5	71.0	65.9	65.9	93.3	78.7
1961	85.1	84.8	75.9	78.8	73.2	70.4	39.6	96.0	81.7
1966	86.4	85.5	76.4	82.4	75.7	70.3	53.4	96.1	82.9
1971	88.6	87.7	79.4	84.6	81.5	74.2	64.1	97.8	85.6
1976	88.7	87.9	80.2	84.9	83.5	74.9	66.4	98.4	86.0
1981	88.2	87.8	79.1	84.9	84.6	75.1	74.2	99.0	85.7
1986	87.9	88.1	78.9	84.6	84.7	74.5	72.0	99.1	85.4
					RURAL				
1921	31.6	37.3	47.5	39.4	39.1	49.2	62.1	99.7	37.4
1947	27.9	28.9	40.1	30.3	34.9	40.9	75.4	10.4	31.1
1954	17.2	18.4	26.8	25.2	28.7	33.9	32.7	6.7	21.0
1961	14.6	15.0	24.0	20.8	26.4	29.4	59.9	4.0	18.1
1966	13.4	14.4	23.5	17.5	23.9	29.6	46.1	3.9	16.9
1971	11.3	12.2	20.4	15.3	18.2	25.7	35.4	2.2	14.3
1976	11.1	12.1	19.7	15.0	16.3	24.9	33.0	1.6	13.9
1981	11.8	12.1	20.8	15.1	15.3	24.8	25.3	1.0	14.2
1986	12.0	11.9	21.0	15.3	15.0	25.4	27.8	0.9	14.5

(a) Census counts by State of enumeration. Excludes full-blood Aboriginals prior to 1961. (b) Urban and rural proportions do not add up to 100 per cent as the proportion of migratory population is not included.

Source: Census 86 — Summary Characteristics of Persons and Dwellings, New South Wales (2479.0); Victoria (2480.0); Queensland (2481.0); Western Austzalia (2482.0); South Australia (2483.0); Tasmania (2484.0); Northern Territory (2485.0); Australian Capital Territory (2486.0); Australia (2487.0).

ESTIMATED RESIDENT POPULATION OF CAPITAL CITIES

	1971	*1976*	*1981*	*1986*	*1989*	*1990*
			POPULATION (PERSONS)			
Sydney	2,935,937	3,143,750	3,279,500	3,472,700	3,633,600	3,656,500
Melbourne	2,503,022	2,723,700	2,806,300	2,931,900	3,043,500	3,080,900
Brisbane	869,579	1,000,850	1,096,200	1,196,000	1,273,500	1,301,700
Adelaide	842,693	924,060	954,300	1,003,800	1,037,700	1,049,800
Perth	703,199	832,760	922,040	1,050,400	1,161,200	1,193,100
Hobart	153,216	164,400	171,110	179,000	181,200	183,500
Darwin	38,885	44,232	56,478	74,800	72,900	73,300
Canberra(a)	159,003	226,450	246,500	281,000	303,200	310,100
(b)	142,925	206,550	226,450	257,850	277,700	284,000
Total	**8,205,534**	**9,060,202**	**9,532,428**	**10,189,600**	**10,706,700**	**10,848,900**
			PROPORTION OF STATE POPULATION (PER CENT)			
Sydney	63.8	63.4	62.7	62.8	63.0	62.8
Melbourne	71.5	71.5	71.1	70.1	70.4	70.3
Brisbane	47.6	47.8	46.7	45.6	44.9	44.8
Adelaide	71.8	72.5	72.3	72.6	72.8	73.0
Perth	68.2	70.7	70.9	72.0	72.8	73.0
Hobart	39.2	39.9	40.1	40.1	40.2	40.2
Darwin	45.0	45.0	46.1	48.4	46.6	46.6
Canberra(b)	99.2	99.4	99.5	99.6	99.6	99.6
Total	**64.3**	**64.6**	**63.9**	**63.6**	**63.5**	**63.3**

(a) Canberra Statistical District. (b) Excluding Queanbeyan.

Source: Estimated Resident Population of Statistical Local Areas, New South Wales, Preliminary (3210.1); Estimated Residential Population in Statistical Local Areas, Victoria, Preliminary (3203.2); Estimated Resident Population and Area, Queensland (3202.3); Estimated Resident Population in Statistical Local Areas, South Australia, Preliminary (3201.4), Estimated Resident Population in Statistical Local Areas, Western Australia, Preliminary (3204.5); Population Statistics, Tasmania (3204.6), Estimated Resident Population of Selected Areas, Northern Territory, Preliminary (3201.7); Estimated Resident Population in Statistical Local Areas, Australian Capital Territory (3205.8).

After New South Wales and Victoria, which had populations of 5.9 million and 4.4 million respectively at 30 June 1991, the State populations were, in order of size, Queensland (3.0 million), Western Australia (1.7 million), South Australia (1.5 million), Tasmania (0.5 million), the Australian Capital Territory (0.3 million) and the Northern Territory (0.2 million).

ESTIMATED RESIDENT POPULATION OF AUSTRALIA

30 June	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Aust.*
1971	4,725,503	3,601,352	1,851,485	1,200,114	1,053,834	398,073	85,735	151,169	13,067,265
1976	4,959,588	3,810,426	2,092,375	1,274,070	1,178,342	412,314	98,228	207,740	14,033,083
1981	5,234,889	3,946,917	2,345,208	1,318,769	1,300,056	427,224	122,616	227,581	14,923,260
1986	5,531,526	4,160,856	2,624,595	1,382,550	1,459,019	446,473	154,421	258,910	16,018,350
1987	5,612,244	4,208,946	2,676,765	1,394,154	1,500,507	447,941	156,674	266,088	16,263,319
1988	5,701,525	4,261,945	2,743,765	1,408,255	1,544,806	448,457	155,866	273,534	16,538,153
1989	5,771,946	4,321,484	2,834,097	1,424,647	1,594,745	451,138	156,323	278,705	16,833,085
1990	5,826,850	4,379,822	2,906,778	1,439,121	1,633,825	456,633	157,277	285,077	17,085,383
1991	5,901,126	4,427,371	2,972,004	1,456,712	1,665,945	460,465	158,779	293,531	17,335,933

Source: Australian Demographic Statistics (3101.0); Estimated Resident Population by Sex and Age: States and Territories of Australia (3201.0).

Demographic factors currently acting on the relative size of the States are above-average rates of natural increase in Western Australia and the two Territories, above-average per capita overseas migration gains in New South Wales and Western Australia and high per capita interstate migration gains in Queensland, Western Australia and the Australian Capital Territory. State population growth rates in the year ended June 1991 were, in order of size, Australian Capital Territory (2.97%), Queensland (2.24%), Western Australia (1.97%), New South Wales (1.27%), South Australia (1.22%), Victoria (1.09%), Northern Territory (0.96%) and Tasmania (0.84%). The growth rate for Australia as a whole was 1.50 per cent.

Age/sex profile

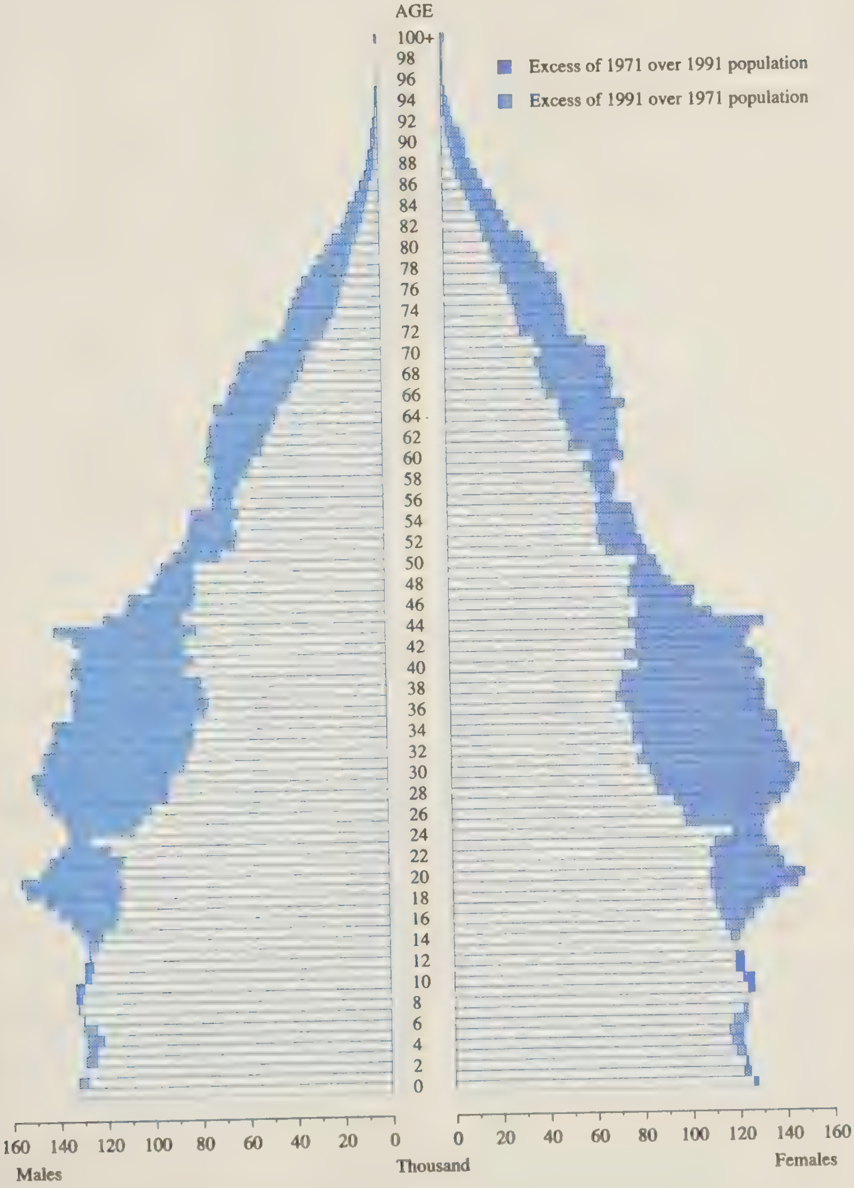
The sex ratio of the population is expressed as the number of males per 100 females. This ratio declines with age: it is about 105 at birth, but, leaving aside inward or outward migration, higher male mortality gradually erodes the difference so that the numbers of males and females would tend to be about the same soon after age 50. From then on, due to continuing mortality differentials in favour of females, the female population begins to exceed males and this excess increases towards old age. The overall sex ratio of the population has been declining since the 1950s as the overseas migration intake has become less male dominated (*see* Migration section below). In 1991 the Australian population had 99.7 males for every 100 females.

The age distribution of the population is shown in the form of an age–sex pyramid, comparing the years 1971 and 1991 (*see* next page). The low birth rates of the depression years of the 1930s, the deaths of defence personnel during World War II, the prolonged 'baby boom' from the end of World War II to the early 1960s, the declining birth rate of the 1970s and 1980s are all reflected in the profile. Tapering of the pyramid from ages 0 to 40, which was still evident in 1971, has now completely disappeared.

The median age of the population at 30 June 1991 was 32.5 years. It has been rising consistently since the beginning of the 1970s as a result of lower birthrates as well as lower mortality rates at most ages. The proportion of the population aged 65 years and over has risen from 8.3 per cent in 1971 to 11.4 per cent in 1991.

As a consequence of changes in the age distribution, the aged-dependency ratio (population aged 65 and over per 100 population of working ages 15–64) has increased from 13.2 in 1971 to 17.0 in 1991, while the child-dependency ratio (population aged 0–14 per 100 population of working ages) has declined sharply from 45.5 to 32.6 during the same period. The combined effect is that the total dependency ratio has declined from 58.8 in 1971 to 49.6 in 1991.

ESTIMATED RESIDENT POPULATION OF AUSTRALIA, 30 JUNE 1971 AND 1991



Source: Estimated Resident Population by Sex and Age: States and Territories of Australia (3201.0).

SEX RATIOS, PERCENTAGE AGE DISTRIBUTION AND MEDIAN AGES OF THE POPULATION

	Sex ratios(a)				
30 June	*Ages 15–24*	*Ages 15–44*	*All ages*	*Aust. born*	*O'seas born*
1971	103.7	105.6	101.1	98.0	114.3
1976	103.2	104.3	100.4	97.8	109.5
1981	103.3	103.4	99.6	97.4	107.5
1986	104.1	103.1	99.8	98.1	106.2
1987	104.1	102.9	99.7	98.1	105.8
1988	104.1	102.8	99.7	98.1	105.5
1989	104.3	102.8	99.7	98.2	105.3
1990	104.4	102.8	99.7	98.2	105.1
1991	104.5	102.6	99.7	98.2	104.7

	Per cent of population aged				
30 June	*0–14*	*15–44*	*45–64*	*65+*	*Median ages(b)*
1971	28.7	43.0	20.0	8.3	27.5
1976	27.0	44.1	20.0	8.9	28.4
1981	25.0	46.1	19.2	9.7	29.6
1986	23.1	47.3	19.1	10.5	31.1
1987	22.6	47.6	19.0	10.7	31.3
1988	22.3	47.8	19.0	10.9	31.6
1989	22.1	47.9	19.0	11.0	31.9
1990	21.9	47.8	19.1	11.2	32.2
1991	21.8	47.6	19.2	11.4	32.5

(a) Males per 100 females. (b) The median age is the age at which half of the population is older and half is younger.

Source: Estimated Resident Population by Sex and Age, States and Territories of Australia (3201.0); Estimated Resident Population by Country of Birth, Age and Sex, Australia (3221.0).

DEPENDENCY RATIOS(a): SELECTED YEARS 1971 TO 91

Age group	*1971*	*1976*	*1981*	*1986*	*1989*	*1990*	*1991*
0–14 years	45.53	42.11	38.24	34.78	32.98	32.71	32.56
65 years and over	13.25	13.93	14.93	15.81	16.49	16.66	16.99
Total	**58.78**	**56.04**	**53.17**	**50.59**	**49.47**	**49.37**	**49.55**

(a) A dependency ratio is the ratio of the dependant population (aged 0–14 and 65 and over) per 100 population of working ages (15–64 years).

Source: Estimated Resident Population by Sex and Age: States and Territories of Australia (3201.0).

Marital status

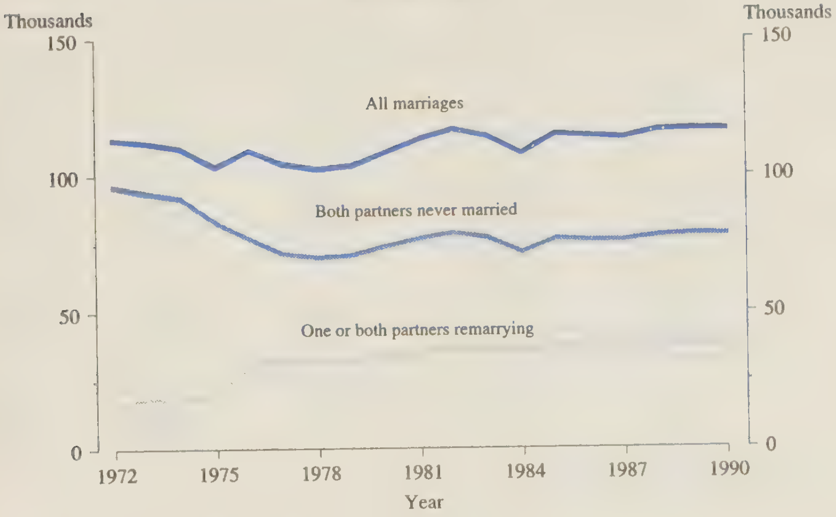
Between 1976 and 1991 total population aged 15 and over increased by 32.4 per cent. Of these, numbers of persons never married, married, widowed and divorced increased by 57.2, 17.7, 18.9 and 216.5 per cent respectively.

The disproportionate increase in the population of divorced persons is a reflection of the increase in divorce following introduction of the Family Law Act in 1975. However, since the beginning of the 1980s there has been a steady decline in the rate of growth of the divorced population.

Females exceed males in all categories excepting the never married. This arises principally from mortality differences in the higher age groups. The effect is particularly noticeable in the widowed category where females far out-number males.

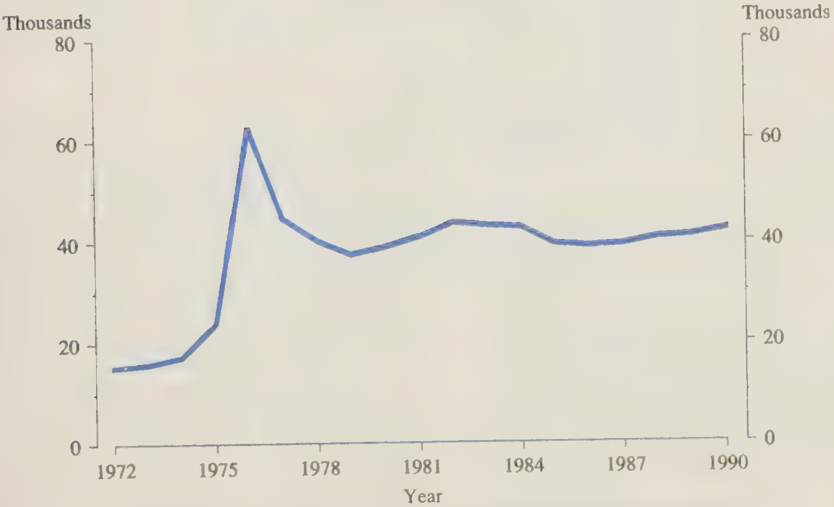
In the 'never married' category males exceed females because of higher sex ratios of the population at younger ages and also because of the customary difference in age between bride and groom at first marriage.

MARRIAGES



Source: Marriages, Australia (3306.0).

DIVORCES(a)



(a) The sharp increase in divorces between 1975 and 1976 is due to the introduction of the Family Law Act in 1976.
Source: Divorces, Australia (3307.0).

ESTIMATED RESIDENT POPULATION AGED 15 AND OVER BY MARITAL STATUS AND SEX ('000)

	Never married	*Married(a)*	*Widowed*	*Divorced*	*Total*
1976					
Males	1,508.2	3,344.2	134.3	104.7	5,091.5
Females	1,094.8	3,354.9	576.1	128.8	5,154.5
Persons	*2,602.9*	*6,699.3*	*710.4*	*233.4*	*10,246.0*
1981					
Males	1,739.0	3,477.7	139.1	187.9	5,543.7
Females	1,310.8	3,487.6	622.2	233.5	5,654.0
Persons	*3,049.8*	*6,965.3*	*761.3*	*421.3*	*11,197.7*
1986					
Males	2,005.8	3,692.5	144.1	261.7	6,104.1
Females	1,534.2	3,704.3	654.3	322.0	6,214.7
Persons	*3,540.0*	*7,396.7*	*798.4*	*583.7*	*12,318.8*
1991p					
Males	2,297.9	3,936.9	154.5	330.0	6,719.3
Females	1,794.5	3,948.9	689.8	408.8	6,842.1
Persons	*4,092.4*	*7,885.8*	*844.3*	*738.8*	*13,561.4*

(a) Includes 'married but permanently separated'.

Source: Estimated Resident Population by Marital Status, Age and Sex, Australia (3220.0).

Birthplace

At the 1947 Census the proportion of the population (excluding Aboriginals) born in Australia had risen to its highest level (90.2%) since the beginning of European settlement and 97.9 per cent of the Australian population were either born in Australia or the United Kingdom, Ireland or New Zealand. In that Census the largest non-British overseas-born group, the Italians, comprised only 0.4 per cent of the population (33,600), while the number of overseas-born Chinese had fallen to 6,400.

Since 1947, not only has the decline of the overseas-born population been reversed, but significant changes have taken place in the composition of that group. The progressive removal of immigration restrictions based on country of origin, race or colour between 1949 and 1973, together with the extension of assisted migration schemes to some non-British groups and refugees, have ensured a greater diversity of ethnic origin among the Australian population (*see also* section on Overseas Migration). Overseas-born groups from the United Kingdom, Eire and New Zealand combined, increased only slightly as a proportion of the total population between 1947 and 1991, from 7.7 per cent to 8.7 per cent. However, overseas-born persons from other countries increased from 2.1 per cent to 14.0 per cent during the same period. Overseas countries of birth contributing 0.1 per cent or more of the total population — apart from the United Kingdom, Eire and New Zealand — increased in number from 4 in 1947 to over 36 in 1991.

The largest overseas-born group at the present time remains those born in the United Kingdom and Ireland, having risen to 1,222,000 or 7.0 per cent of the population in 1991. By comparison, the second largest overseas-born group, New Zealanders, comprised only 1.7 per cent of the Australian population in 1991 (287,500). Six of the first ten largest overseas-born groups are European, the exceptions being New Zealand, Vietnam, Malaysia and the Philippines (Hong Kong ranks eleventh). Although Europe remains the region of origin of the majority of the overseas-born population, the number of European-born persons has declined as a proportion of the total Australian population from 16.7 per cent in 1976 to 13.9 per cent in 1991, while persons born in other regions have increased their share. Between 1976 and 1991, the European-born population increased by only 72,100 compared with an increase of 537,000 in the Asian-born group.

The proportion of the Australian population born in Asia has increased continually from 0.3 per cent in 1947 to 4.1 per cent in 1991. As recently as 1966, however, only two Asian birthplace groups had populations amounting to more than 0.1 per cent of the Australian population, namely China and India. By 1991 this number had increased to 12. Sources of the largest Asian-born populations in 1991 were Vietnam (133,440), Malaysia (84,090), Philippines (74,330), Hong Kong (73,210), China (68,510) and India (65,430), comprising 0.8, 0.5, 0.4, 0.4, 0.4 and 0.4 per cent of the Australian population respectively.

In June 1991 the median age of the overseas-born population was 42.3 years, 10 years older than the median (32.5 years) for the population as a whole. The median age of the Australian-born population was 28.9 years. Overseas-born population groups from recent source countries e.g. Lebanon, South-East Asia, South America and South Africa are noticeably younger than those from traditional sources — the United Kingdom and Europe.

At the 1986 Census, 77.6 per cent of the population was born in Australia. Of these, 74.9 per cent reported Australia as the birthplace of both their parents. This implies that 58.1 per cent of the total population of Australia are at least second generation Australians. A further 13.7 per cent of the Australian-born population (10.6% of the total population) had one parent born in Australia. Conversely, 41.9 per cent of the total population were either born overseas or had at least one parent born overseas.

BIRTHPLACE OF PARENTS OF AUSTRALIAN-BORN PERSONS, CENSUS 1986

Birthplace of parents	*Numbers*	*Percentage*
Both parents born in Australia	9,070,739	74.9
One parent born in Australia, one born overseas or not stated	1,657,548	13.7
Other	1,382,169	11.4
Total	**12,110,456**	**100.0**

Source: Census 86 — Summary Characteristics of Persons and Dwellings, Australia (2487.0).

Citizenship

The granting of citizenship is controlled by the *Australian Citizenship Act 1948*. Prior to 26 January 1949, aliens who were naturalised became British subjects but with the introduction of the Act, all such persons automatically became Australian citizens.

Citizenship may be acquired by birth in Australia provided that at the time of birth one of the parents is an Australian citizen or legal resident of Australia, by birth abroad to an Australian parent, or by grant of citizenship to a person resident in Australia under conditions prescribed in the Act. All persons are now eligible for Australian citizenship provided that they have resided in Australia for at least two years, are of good character, have an adequate knowledge of English and of the responsibilities and privileges of citizenship, and intend to reside permanently in Australia.

At the 1981 Census, 88.7 per cent of the population were Australian citizens, with 11.9 per cent of these being born overseas. At the 1986 Census the proportion of the population with Australian citizenship was identical to the 1981 level, but the share of those born overseas increased to 12.3 per cent.

COUNTRY OF CITIZENSHIP, 1981 AND 1986

Country	Persons 1981	Persons 1986	Percentage 1981	Percentage 1986
Australia				
Born in Australia	11,393,861	11,917,624	78.2	76.4
Born overseas	1,537,212	1,919,474	10.5	12.3
Other	1,413,654	1,331,335	9.7	8.5
Not stated	231,603	433,723	1.6	2.8
Total	**14,576,330**	**15,602,156**	**100.0**	**100.0**

Source: Census 86 — Summary Characteristics of Persons and Dwellings, Australia (2487.0).

Religion

Details on religious affiliation have been collected in all Australian censuses. However, since the 1933 Census, it has been clearly stated on the census form that answering the question on religion is not obligatory. By 1986, 25.0 per cent of the population described themselves as either having 'no religion' or did not answer the question.

Census data show that the Australian population is predominantly Christian with the majority associating themselves with the two major groups, the Catholic Church and the Church of England (26.1% and 23.9% respectively at the 1986 Census).

MAJOR RELIGIOUS GROUPS, SELECTED CENSUS DATES
(per cent)

Year	Church of England	Catholic	Other Christian	Total Christian	Non-Christian	Not stated or no religion	Total
1971	31.0	27.0	28.2	86.2	0.8	13.1	100.0
1976	27.7	25.7	25.2	78.6	0.9	20.5	100.0
1981	26.1	26.0	24.3	76.4	1.4	22.3	100.0
1986	23.9	26.1	23.0	73.0	2.0	25.0	100.0

Source: Census of Population and Housing, 30 June 1971 — Bulletin 1: Summary of Population, Australia (2.83.9), Census of Population and Housing, 30 June 1976 — Population and Dwellings Summary Tables, Australia (2417.0), Census 86 — Summary Characteristics of Persons and Dwellings, Australia (2487.0) (1981, 1986).

The remainder of the Christian population, amounting to 23 per cent of the total population at the 1986 Census, is dispersed between several other groups, with only three denominations comprising more than 2.0 per cent of the population: the Uniting Church (7.6%), Presbyterian (3.6%) and Orthodox (2.7%).

There has been a slight increase in the proportion of persons of non-Christian religions since 1981, from 1.4 per cent to 2.0 per cent in 1986. At the 1986 Census, Muslims comprised 35.0 per cent of the non-Christian response, Buddhists 25.0 per cent and Hebrews 20.0 per cent.

Households

The incidence of household formation in Australia has been exceeding population growth rates, with the average number of persons per household declining from 3.3 in 1971 to 2.9 in 1986. Much of the decline in the number of persons per household can be attributed to reductions in completed family size together with the growing tendency for children to leave home earlier; at the same time there have been changing social attitudes to divorce, people living alone, de facto marriages and households formed by groups of unrelated young people. There has been continuing growth in one and two-person households, rising from 47.2 per cent of all households in 1981 to 49.5 per cent at the 1986 Census.

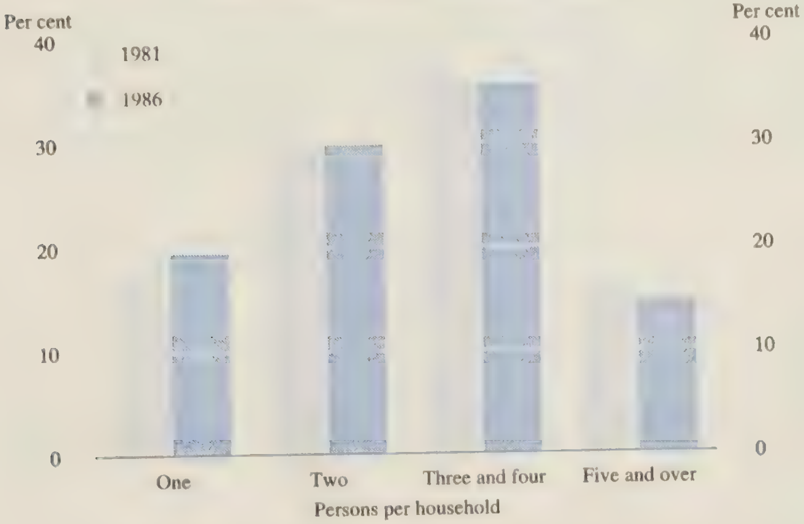
Only a small proportion of households include more than one family, some three per cent at the 1981 Census, which declined further to 2.4 per cent at the 1986 Census. The 1986 Census indicated that 47.6 per cent of total families had no dependent children and 52.4 per cent did have dependent children. Among families with dependent children, 35.9 per cent had one child and 64.1 per cent had two or more dependent children. Single parent families comprised 7.9 per cent of total families and were mostly composed of parent and dependent children (76.3%); the balance included an additional adult family member (23.7%).

POPULATION IN PRIVATE HOUSEHOLDS

Year	*Persons in private households*	*Private households*	*Persons per private household*
1971	12,155,386	3,670,554	3.31
1976	12,942,708	4,140,521	3.12
1981	13,918,445	4,668,909	2.98
1986	14,920,230	5,187,422	2.88

Source: Census 86 — Summary Characteristics of Persons and Dwellings, Australia (2487.0).

PROPORTION OF HOUSEHOLDS BY SIZE



Source: Census 86 - Summary Characteristics of Persons and Dwellings, Australia (2487.0).

FAMILY TYPE AND COMPOSITION, 1986

Family Type	*No.*	*Per cent*
Families without dependent children		
Couple	1,271,872	30.6
Couple and adult family member	449,208	10.8
Related adults	258,768	6.2
Families with dependent children		
Couple and 1 dependent child	403,298	9.7
Couple and 2 or more dependent children	1,072,968	25.8
Couple and 1 dependent child and adult family member	206,496	5.0
Couple and 2 or more dependent children and adult family member	171,230	4.1
Single parent and 1 dependent child	124,166	3.0
Single parent and 2 or more dependent children	123,016	3.0
Single parent and 1 dependent child and adult family member	48,054	1.2
Single parent and 2 or more dependent children and adult family member	28,935	0.7
Total families	**4,158,011**	**100.0**

Source: Census 86 — Summary Characteristics of Persons and Dwellings, Australia (2487.0).

VITAL STATISTICS

Registration of vital events, i.e., births, deaths and marriages, has been compulsory throughout Australia since 1856. The total number of these registrations is available for each year since the 1860s and more detailed information since the 1910s. The number of divorces has been published since 1891, but detailed data on aspects of divorces and divorcing couples have been published on a consistent basis only since the 1950s.

Births

Recent fertility levels in Australia have been lower than at any time since records began. In 1990 the crude birth rate was 15.4 per 1,000 population and the total fertility rate was 1.91 per woman, showing a change from the long-term decline in fertility up to 1989. Australia's current fertility rates, however, remain higher than in several other similarly 'more developed' countries in Europe, North America and Japan.

CRUDE BIRTH RATES AND TOTAL FERTILITY RATES SELECTED LOW FERTILITY COUNTRIES

	Crude birth rate			*Total fertility rate(a)*		
Country	*1970*	*Latest year*		*1970*	*Latest year*	
Australia	20.6	15.4	(1990)	2.86	1.91	(1990)
Canada	17.4	15.0	(1989)	2.26	1.66	(1987)
France	16.7	13.5	(1990)	2.47	1.80	(1990)
Germany(b)	13.3	11.5	(1990)	2.01	1.48	(1990)
Germany(c)	13.9	10.5	(1990)	n.a.	1.41	(1990)
Italy	16.8	9.8	(1990)	2.37	1.27	(1990)
Japan	18.8	10.0	(1990)	2.07	1.57	(1989)
New Zealand	22.1	17.5	(1989)	3.16	2.10	(1989)
Spain	19.6	10.2	(1990)	2.87	1.33	(1990)
United Kingdom	16.2	13.9	(1990)	2.38	1.85	(1990)
United States of America	18.2	16.7	(1990)	2.46	2.09	(1990)

(a) The total fertility rate is the sum of the age-specific birth rates. It represents the number of children that would be born to a female who experienced, throughout her child-bearing life, the age specific rates for the years shown. (b) Formerly West Germany. (c) Formerly East Germany.

Source: Population No. 4, 1991, Review of L'Institut National D'Etudes Demographique, Paris.

Despite an overall fertility decline, the number of births has shown an increasing trend during the 1980s because of increasing numbers of women of reproductive age. The number of births in 1990 (262.6 thousand) was the highest since 1972, though not as great as the record number of 276.4 thousand in 1971.

Women now prefer to commence child-bearing later and complete their families earlier than previous generations. The proportion of first nuptial confinements occurring in the first two years of marriage is continuing to decline. For women married in 1971 the proportion was 46.5 per cent, but for women married in 1988 it had fallen to 33.3 per cent. This postponement of child-bearing in marriage is having a cumulative effect in the context of the rising median age at marriage (21.4 years in 1971 and 25.7 years in 1988).

In the 1970s, fertility declines became obvious across all age-groups, falling rapidly between 1971 and 1980, and marginally since then. This decline has been attributed to demographic, social, economic and attitudinal changes of the 1970s, which individually or collectively influenced fertility behaviour during this period. Between 1971 and 1990, the total fertility rate declined by 35 per cent. The largest declines in age-specific fertility rates occurred to younger women aged 15–29 years, in particular the 20–24 age group. Women were deferring their first birth to the middle range of their reproductive years and reducing child-bearing at older ages. In 1971, 46.6 per cent of births occurred to women aged 15–24. By 1990, the corresponding figure was 26.0 per cent. The proportion of births occurring to women aged 25–34 in 1971 was 45.9 per cent, whereas in 1990 it was 64.0 per cent. Women in the 25–29 age group maintained the highest fertility rates.

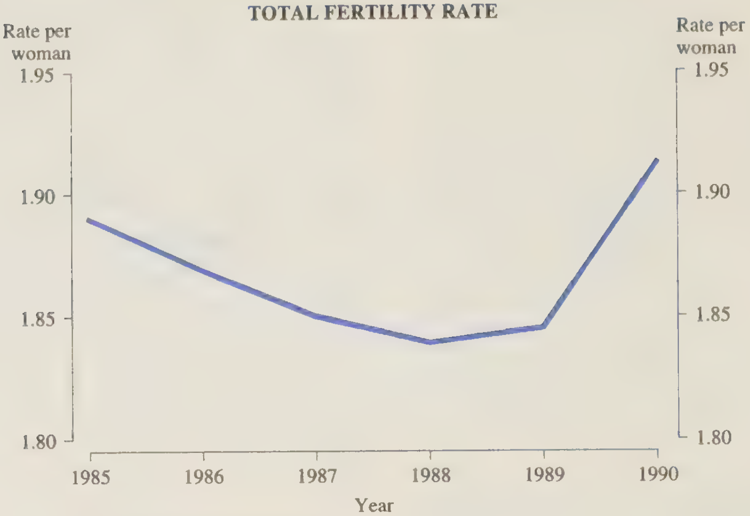
AGE-SPECIFIC BIRTH RATES AND TOTAL FERTILITY

	Age group (years)							*Total fertility (per woman)*
Period	*15–19(a)*	*20–24*	*25–29*	*30–34*	*35–39*	*40–44*	*45–49(b)* *per '000 women*	
Average annual								
1976–80	30.7	116.4	143.9	73.8	23.8	4.8	0.3	1.968
1981–85(c)	25.7	100.8	144.5	82.0	25.4	4.4	0.3	1.915
1986–90	21.0	83.0	138.8	94.1	30.8	4.8	0.2	1.864
Annual								
1985	22.5	94.1	143.4	87.2	25.4	4.4	0.2	1.891
1986	21.8	90.0	141.9	88.7	27.2	4.3	0.2	1.870
1987	20.6	85.2	139.8	90.6	28.9	4.8	0.3	1.851
1988	20.2	81.8	137.2	93.4	30.5	4.6	0.2	1.840
1989	20.6	78.6	136.2	96.0	32.5	5.0	0.2	1.846
1990	22.0	79.6	139.0	101.6	34.7	5.5	0.2	1.913

(a) Includes births to mothers aged less than 15. (b) Includes births to mothers aged 50 and over. (c) Rates are adjusted for late registrations of births in New South Wales in 1984.

Source: Births, Australia (3301.0).

TOTAL FERTILITY RATE



Source: Births, Australia (3301.0).

MARRIED FEMALES UNDER 45 YEARS OF AGE AT TIME OF MARRIAGE YEAR MARRIED AND TIMING OF FIRST NUPTIAL CONFINEMENT

Year of marriage	*Premaritally pregnant(b)*	*Having the first nuptial confinement before the end of given year of marriage duration(a) — cumulative per cent*						*Number of brides aged under 45 years*
		1	*2*	*3*	*4*	*5*	*10*	
1971	19.8	28.1	46.5	60.6	70.6	77.0	87.0	112,817
1972	18.0	25.5	43.7	57.9	68.0	74.9	86.2	109,007
1973	15.6	22.8	41.0	54.7	64.8	72.0	84.5	107,563
1974	13.4	20.6	38.0	51.5	61.7	69.0	82.4	105,759
1975	12.2	19.3	36.9	50.5	60.8	68.5	82.6	98,951
1976	10.9	18.0	35.0	47.5	57.2	64.5	76.2	103,108
1977	11.1	17.6	34.1	46.9	57.0	64.5	77.4	98,551
1978	11.3	17.7	34.6	47.8	57.8	65.1	77.7	96,859
1979	11.3	17.7	35.4	48.8	58.7	65.7	78.2	98,286
1980	11.5	17.9	35.7	48.9	58.6	65.5	77.6	103,019
1981	11.3	17.9	33.5	48.3	57.8	64.6	—	107,855
1982	10.4	16.8	33.7	46.0	55.3	61.8	—	111,295
1983	9.9	16.0	33.0	45.8	55.0	61.6	—	108,931
1984	10.1	16.6	34.8	48.1	57.8	64.9	—	102,785
1985	9.2	15.4	32.3	44.5	53.5	60.2	—	109,377
1986	8.9	15.0	31.6	43.8	53.0	—	—	108,442
1987	9.0	15.4	32.1	44.7	—	—	—	107,668
1988	9.2	15.8	32.8	—	—	—	—	110,163
1989	9.3	16.3	—	—	—	—	—	110,245

(a) Includes premarital pregnancies. (b) Premaritally pregnant comprises wives who delivered their first child within marriage duration of 0–7 completed months.

Source: Births, Australia (3301.0).

TOTAL CONFINEMENTS BY NUPTIALITY AND PREVIOUS ISSUE TO THE CURRENT MARRIAGE OF MOTHER (NUPTIAL BIRTHS)

		Married mothers with number of previous issue to the current marriage of							
Period	*Ex-nuptial confinements*	*0*	*1*	*2*	*3*	*4*	*5 or more*	*Not stated*	*Total*
				ANNUAL AVERAGES					
1976–1980	24,851	77,877	69,291	34,288	11,119	3,332	2,451	15	223,224
1981–1985	34,248	82,279	70,089	34,399	11,354	3,093	1,918	103	237,483
1986–1990	47,492	81,246	68,588	33,584	10,887	2,919	1,723	5	246,444
				ANNUAL TOTALS					
1985(a)	37,933	82,860	73,114	34,774	11,246	2,867	1,877	—	244,671
1986	40,580	80,563	70,017	33,937	10,955	2,904	1,723	20	240,699
1987	43,418	80,241	68,730	33,472	10,793	2,873	1,742	—	241,269
1988	46,293	79,841	68,432	33,419	10,650	2,856	1,699	3	243,193
1989	50,321	81,355	67,459	33,066	10,856	2,874	1,688	3	247,622
1990	56,850	84,228	68,301	34,026	11,179	3,089	1,761	—	259,435

(a) These figures have been affected by late registration in New South Wales.

Source: Births, Australia (3301.0).

Concurrent with the downward movement that has occurred in the levels of fertility, the family formation patterns of couples have changed. An increasing proportion of total births has now been occurring outside marriage, and for those occurring within marriage, concentration has been on the first and second order births.

Confinements resulting in ex-nuptial births have increased continually as a proportion of total confinements over the past two decades, rising from 9.3 per cent in 1971 to 21.9 per cent in 1990. The median age of ex-nuptial mothers has been lower than that at first nuptial confinement throughout the period and it seems likely that ex-nuptial births are predominantly first order births, though birth order data are not available for ex-nuptial births.

The proportion of females having three or more children in their marriage is continuing to decline. The proportion of nuptial confinements that produced a fourth or higher order birth has declined from 22.5 per cent in 1971 to 7.9 per cent in 1990. In the same year (1990) 75.3 per cent of nuptial confinements resulted in first or second children.

Deaths

In comparison with other countries, Australia ranks amongst those with the lowest mortality levels and the highest expectations of life.

INFANT MORTALITY AND EXPECTATION OF LIFE AT BIRTH RATES IN SELECTED LOW MORTALITY COUNTRIES, RECENT YEARS

	Infant mortality		*Life expectancy at birth*		
Country	*Rate*	*Year*	*Males*	*Females*	*Year*
Australia	8.2	1990	73.9	80.0	1990
Canada	7.2	1988	73.3	80.2	1987
France	7.2	1990	72.4	80.6	1989
Germany(a)	7.5	1989	72.6	79.0	1989
Germany(b)	7.6	1989	70.1	76.4	1989
Italy	8.6	1990	73.2	79.7	1988
Japan	4.6	1989	75.9	81.8	1989
New Zealand	10.2	1989	71.6	77.6	1988
Spain	7.6	1990	73.2	79.8	1987
United Kingdom	7.9	1990	72.2	77.9	1988
United States	9.1	1990	71.4	78.3	1988

(a) Formerly West Germany. (b) Formerly East Germany.

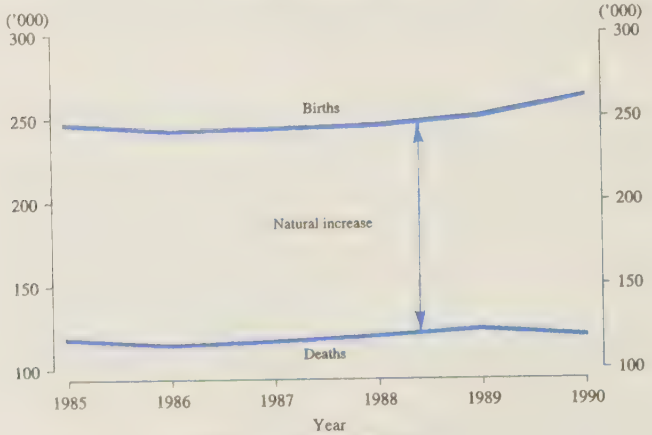
Source: Population No.4 1991, Review of L'Institut National D'Etudes Demographique, Paris.

The number of deaths in 1990 was 120,062, a decline of 3.4 per cent from the previous year which, in the context of the crude death rate, resulted in a slight decrease from 7.38 to 7.00 per thousand population. Generally, the current trend is towards a levelling of the crude death rate following two decades of consistent falls.

Mortality trends, as measured by the crude death rate, are distorted by changes in the age structure of the population over time. Australian crude death rates standardised for age show a considerably greater decline in mortality levels since the early 1970s and instead of a current levelling off, a continuation of this decline. Using the age structure of the estimated resident population of persons as at 30 June 1986 as the standard, the adjusted death rate fell from 12.9 per thousand in 1971 to 8.7 per thousand in 1990 for males and from 8.0 to 5.1 per thousand for females during the same period.

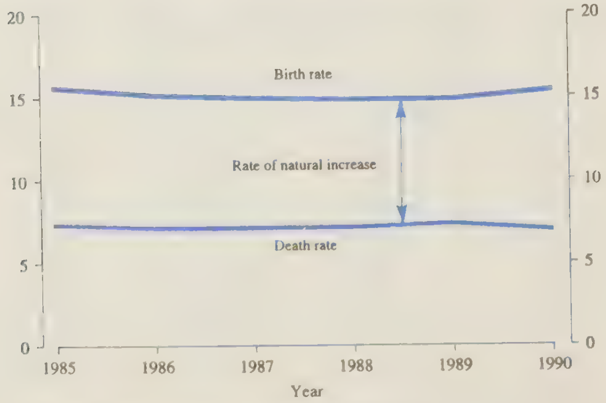
The decline in death rates is a result of continuing improvements to community health care, public awareness of health issues and advances in medical science and technology.

BIRTHS AND DEATHS



Source: Births, Australia (3301.0) and Deaths, Australia (3302.0).

RATES OF BIRTHS AND DEATHS
(Per thousand mean population)



Source: Births, Australia (3301.0) and Deaths, Australia (3302.0).

In Australia, as in most other countries, females have lower death rates than males. Age-specific rates show this discrepancy occurring across all age groups. In 1990, e.g., the female death rate in many age groups was about half that of males. The relative difference between death rates for males and females was greatest in the age range 15 to 24 years where in 1990 the female rate was about one-third that of males. The overall effect of these differences in death rates has been to increase the proportion of females in the older age groups of the population.

Concurrent with the decline in death rates over the last two decades there has been a rise in life expectancy at birth, increasing for males from 67.9 years to 73.9 years between the periods 1970–1972 and 1990, and correspondingly for females from 74.6 years to 80.0 years. Female life expectancy at birth has exceeded that of males throughout the period, with the difference varying from six to seven years. Contributing to the increase in life expectancy at birth is the reduction in infant mortality rates, falling from 19.5 per thousand and 15.0 per thousand for males and females respectively in 1970–72 to 9.1 and 7.2 respectively in 1990.

AGE-SPECIFIC DEATH RATES(a)

																			Age group (years)
Period	*0*	*1–4*	*5–9*	*10–14*	*15–19*	*20–24*	*25–29*	*30–34*	*35–39*	*40–44*	*45–49*	*50–54*	*55–59*	*60–64*	*65–69*	*70–74*	*75–79*	*80–84*	*85 and over*
MALES																			
Average annual																			
1976–80	13.6	0.7	0.3	0.4	1.4	1.7	1.4	1.3	1.9	3.0	5.2	8.6	13.8	22.2	35.3	54.2	87.7	127.9	210.7
1981–85(b)	11.0	0.6	0.3	0.3	1.2	1.5	1.3	1.3	1.5	2.4	4.1	7.2	12.2	19.2	31.1	49.4	78.0	119.1	205.6
1986–90	9.6	0.5	0.2	0.3	1.0	1.5	1.4	1.4	1.5	2.1	3.3	5.9	10.2	19.2	27.3	44.5	70.7	110.0	188.6
Annual																			
1985(b)	11.3	0.6	0.3	0.3	1.1	1.6	1.3	1.3	1.4	2.2	3.7	6.6	11.4	18.5	29.5	47.1	74.7	119.4	205.1
1986	10.0	0.5	0.3	0.3	1.1	1.5	1.3	1.3	1.4	2.3	3.5	6.3	10.7	18.0	28.3	45.4	72.1	110.7	187.2
1987	10.0	0.5	0.2	0.3	1.0	1.5	1.3	1.3	1.5	2.0	3.5	6.1	10.9	17.2	27.9	45.3	71.2	111.2	190.9
1988	9.8	0.5	0.2	0.3	1.1	1.6	1.5	1.4	1.5	2.2	3.4	6.0	10.0	17.3	27.2	45.0	71.9	110.7	186.6
1989	8.9	0.4	0.2	0.3	1.0	1.4	1.5	1.4	1.7	1.9	3.2	5.8	9.9	16.7	27.2	45.3	71.7	113.8	196.8
1990	9.3	0.5	0.2	0.2	0.9	1.4	1.4	1.4	1.9	2.1	3.1	5.3	9.6	16.1	26.1	41.5	66.8	103.7	181.4
FEMALES																			
Average annual																			
1976–80	10.7	0.5	0.2	0.2	0.5	0.5	0.5	0.7	1.0	1.8	2.8	4.5	6.8	10.8	16.9	27.9	48.4	84.0	168.4
1981–85(b)	8.9	0.5	0.2	0.2	0.4	0.5	0.5	0.6	0.9	1.4	2.4	3.9	6.0	9.6	15.3	25.3	43.3	76.4	160.5
1986–90	7.5	0.4	0.2	0.2	0.4	0.5	0.5	0.6	0.8	1.3	2.1	3.4	5.4	8.6	14.0	23.9	40.3	70.8	150.2
Annual																			
1985(b)	8.9	0.4	0.2	0.2	0.4	0.5	0.5	0.6	0.8	1.3	2.3	3.8	5.9	9.0	14.6	25.5	42.9	76.4	157.9
1986	7.7	0.4	0.2	0.2	0.4	0.5	0.5	0.6	0.8	1.4	2.2	3.5	5.7	8.8	15.1	24.8	41.1	71.2	148.3
1987	7.5	0.3	0.2	0.1	0.4	0.5	0.5	0.5	0.8	1.3	2.1	3.5	5.5	8.6	13.9	23.9	40.8	72.1	151.3
1988	7.6	0.4	0.2	0.2	0.4	0.5	0.5	0.6	0.8	1.2	2.1	3.4	5.5	8.7	13.8	23.5	40.7	71.4	147.7
1989	7.1	0.4	0.2	0.2	0.4	0.5	0.5	0.6	0.8	1.3	2.0	3.3	5.3	8.7	13.7	24.3	40.1	72.8	156.9
1990	7.4	0.3	0.1	0.2	0.4	0.4	0.5	0.5	0.8	1.1	1.9	3.3	5.0	8.2	13.3	22.9	38.6	66.3	146.6

(a) Deaths per 1,000 mid-year population. (b) Adjusted for late registrations in New South Wales.
Source: Deaths, Australia (3302.0).

Changes in levels of mortality and age-specific death rates reflect trends in the incidence of specific causes of death. The three most prevalent causes of death at the present time are ischaemic heart disease, cancer and cerebrovascular disease or stroke which in 1990 collectively accounted for 61.4 per cent of deaths registered. The incidence of deaths from both cerebrovascular disease and ischaemic heart disease are currently declining. Amongst males however, cerebrovascular disease is now exceeded by deaths from respiratory causes, which are becoming more prevalent for both sexes.

Cause of death is age and sex-related, with different causes assuming greater or lesser significance for males and females of different age groups. The most common causes of death during the first year of life are the culmination of conditions originating in the perinatal period. These include prematurity, birth injury and respiratory conditions present from birth.

LIFE EXPECTANCY AT VARIOUS AGES
(years)

	At age									
	0		*1*		*25*		*45*		*65*	
Period	*Males*	*Females*	*Males*	*Females*	*Males*	*Females*	*Males*	*Females*	*Males*	*Females*
1970–72(a)	67.9	74.6	68.3	74.7	45.8	51.5	27.1	32.6	12.2	15.9
1975–77(a)	69.6	75.6	69.6	76.5	46.9	53.1	28.3	34.0	13.1	17.1
1980–82(a)	71.2	78.3	71.1	78.0	48.2	54.5	29.5	35.3	13.8	18.0
1981(b)	71.4	78.4	71.2	78.1	48.3	54.7	29.6	35.4	13.9	18.1
1982(b)	71.2	78.2	71.1	77.9	48.2	54.5	29.5	35.2	13.9	17.9
1983(b)	72.1	78.7	71.9	78.4	48.9	54.9	30.1	35.6	14.2	18.3
1984(b)(c)	72.6	79.1	72.4	78.7	49.3	55.2	30.5	35.9	14.5	18.5
1985(b)(c)	72.3	78.8	72.1	78.5	49.2	55.0	30.4	35.7	14.3	18.2
1986(b)	72.9	79.2	72.6	78.8	49.6	55.3	30.9	36.0	14.7	18.5
1987(b)	73.0	79.5	72.8	79.1	49.7	55.5	31.0	36.2	14.7	18.6
1988(b)	73.1	79.5	72.8	79.1	49.8	55.6	31.1	36.3	14.8	18.7
1989(b)	73.3	79.6	73.0	79.1	50.0	55.6	31.2	36.3	14.7	18.7
1990(b)	73.9	80.0	73.5	79.6	50.5	56.1	31.7	36.7	15.2	19.0

(a) Source: Australian Life Tables, Office of the Australian Government Actuary. (b) Source: Deaths, Australia (3302.0). (c) Adjusted for late registrations in New South Wales.

In addition to the following information on causes of death, more details are contianed in the chapter on Health.

STANDARDISED DEATH RATES(a), CAUSES OF DEATH

Cause of death	*1971*	*1976*	*1981*	*1986*	*1989*	*1990*
			MALES			
Neoplasms	198	205	215	214	216	212
Endocrine, nutritional and metabolic diseases	20	17	16	17	19	21
Cardiovascular diseases	458	419	349	292	272	250
Cerebrovascular diseases	143	123	98	73	67	61
Other circulatory diseases	62	53	40	31	29	28
Respiratory diseases	106	109	83	73	84	69
Diseases of the digestive system	29	32	32	28	29	26
Diseases of infancy	25	20	14	12	11	11
External causes(b)—accidents	80	70	58	48	46	43
—violence, suicide	21	19	20	21	22	23
Other	58	53	49	52	57	54
Total	**1,200**	**1,120**	**974**	**861**	**852**	**799**

For footnotes *see* end of table.

STANDARDISED DEATH RATES(a), CAUSES OF DEATH — *continued*

Cause of death	*1971*	*1976*	*1981*	*1986*	*1989*	1990
FEMALES						
Neoplasms	125	125	122	130	128	127
Endocrine, nutritional and metabolic diseases	19	16	13	13	13	12
Cardiovascular diseases	246	212	175	159	150	139
Cerebrovascular diseases	136	113	86	66	59	55
Other circulatory diseases	46	37	27	20	19	18
Respiratory diseases	37	40	28	27	36	30
Diseases of the digestive system	17	18	17	17	16	16
Diseases of infancy	21	17	11	10	9	9
External causes(b)—accidents	32	28	22	20	19	18
—violence, suicide	11	7	7	7	6	6
Other	45	37	35	38	42	40
Total	**735**	**650**	**543**	**507**	**498**	**470**

(a) Per 100,000 persons, standardised to age distribution for persons, 1981. (b) Includes poisoning.
Source: Unpublished ABS data.

In 1990, external causes (accidents, violence and suicide) were the leading causes of death for each age group in the range 1–39 years, and particularly at ages 15 to 24 years where they accounted for 72.9 per cent of all deaths.

When male and female deaths were compared for particular age groups there were marked differences for certain main causes of death. For example, the male death rates for heart disease and external causes were over three times the equivalent rates for females aged 35 to 59 and 25 to 54 respectively.

The main cause of death for people in the 45–64 year age range was malignant neoplasms, accounting for 41.4 per cent of deaths. Deaths due to malignant neoplasms as a proportion of all deaths have risen slightly over the period 1980 to 1990. However, there has been little change in the distribution of cancer deaths by the primary site of growth. Malignant neoplasms of the digestive organs and peritoneum accounted for approximately 30 per cent of both male and female cancer deaths. The pattern of cancer deaths across other sites varied between the sexes. Whereas for 28.3 per cent of male deaths due to malignant neoplasms the primary site of growth was located in the respiratory and intrathoracic organs, this site accounted for only 12.7 per cent of female cancer deaths. However, malignant neoplasms of the breast accounted for 2,449 female deaths in 1990, representing 18.6 per cent of all female cancer deaths.

For people aged 65 and over the main cause of death was heart disease, accounting for 36.2 per cent of all deaths in this age group in 1990, while over all age groups 31.8 per cent of all deaths registered in Australia were attributed to heart disease. While this proportion was similar for males and females overall, the distribution of deaths by age group differed between the sexes. Heart disease was a more significant cause of death at younger ages for males than for females.

Marriages

The number of marriages occurring in Australia reached a peak of 117,600 in 1971 which, despite a growing population, has not yet been surpassed. The 1971 peak was followed by a rapid decline in numbers which coincided with growing public acceptance of de facto relationships. Although this decline levelled off in the latter half of the 1970s and numbers have recovered since then (there were 116,959 marriages in 1990) the crude marriage rate has continued to drop. In 1990 it was 6.8 per thousand mean population.

The passing of the Family Law Act in 1976 (which provided easy and faster access to divorce) had a significant effect on the composition of marriages. Prior to the Act approximately 80–85 per cent of marriages were first marriages for both partners, but after 1976 this proportion fell to 65–70 per cent. In 1990 the figure was 67.4 per cent.

MARRIAGES REGISTERED: RELATIVE PREVIOUS MARITAL STATUS AND CRUDE MARRIAGE RATE

	Both partners never married		*One or both partners previously married*			
Period	*Number*	*Per cent*	*Number*	*Per cent*	*All marriages*	*Crude marriage rate*
Annual averages						
1976–1980	73,401	69.1	32,896	30.9	106,297	7.4
1981–1985	77,003	67.5	37,035	32.5	114,038	7.4
1986–1990	77,877	67.1	38,118	32.9	115,995	7.0
1986	76,647	66.7	38,266	33.3	114,913	7.2
1987	76,706	67.2	37,407	32.8	114,113	7.0
1988	78,400	67.1	38,416	32.9	116,816	7.1
1989	78,850	67.3	38,326	32.7	117,176	7.0
1990	78,782	67.4	38,177	32.6	116,959	6.8

Source: Marriages, Australia (3306.0).

MEDIAN AGES OF BRIDEGROOMS AND BRIDES, PREVIOUS MARITAL STATUS

	Median age of bridegrooms				*Median age of brides*			
Period	*Bachelors*	*Widowers*	*Divorced*	*Total*	*Spinsters*	*Widows*	*Divorced*	*Total*
Annual averages								
1976–80	23.9	58.4	36.1	25.4	21.6	51.6	32.5	22.7
1981–85	24.9	59.8	36.6	26.4	22.7	52.2	33.5	23.9
1986–90	26.1	60.9	38.9	27.8	24.0	52.4	35.4	25.4
1986	25.6	60.5	38.3	27.3	23.5	52.6	34.8	24.9
1987	25.9	60.6	38.6	27.6	23.8	52.4	35.1	25.2
1988	26.1	60.9	38.9	27.8	24.0	52.4	35.3	25.4
1989	26.3	61.0	39.3	28.0	24.2	52.5	35.6	25.7
1990	26.4	61.3	39.5	28.1	24.3	52.3	36.0	25.8

Source: Marriages, Australia (3306.0).

FIRST MARRIAGE RATIOS(a)

	Cumulative ratios of age-groups(b)						
Period	*To 19*	*20–24*	*25–29*	*30–34*	*35–39*	*40 and over*	*Index of total first marriages (c)*
				BRIDEGROOMS			
Annual average							
1976–80	37.6	368.2	184.4	55.2	20.8	28.5	694.7
1981–85(d)	18.7	310.4	221.1	71.2	23.3	25.1	669.8
1986–90	8.9	240.5	245.9	94.4	30.0	24.0	643.7
Annual							
1985(d)	11.2	279.6	235.0	82.5	25.4	23.6	657.3
1987	9.0	247.2	241.5	90.4	27.4	24.3	639.8
1988	9.8	239.9	248.3	96.3	30.8	23.1	648.1
1989	8.4	233.3	248.8	100.0	32.0	24.9	647.2
1990	7.6	219.3	253.7	100.5	33.3	24.2	638.5

For footnotes *see* end of table.

FIRST MARRIAGE RATIOS(a) — *continued*

	Cumulative ratios of age-groups(b)						*Index of total first marriages (c)*
Period	*To 19*	*20–24*	*25–29*	*30–34*	*35–39*	*40 and over*	
			BRIDES				
Annual average							
1976–80	182.9	362.7	95.5	28.0	11.4	14.7	695.0
1981–85(d)	111.9	377.0	134.9	36.1	11.8	11.2	682.8
1986–90	62.5	344.0	182.1	54.9	16.5	11.5	671.5
Annual							
1985(d)	87.5	373.2	155.5	42.8	13.3	11.3	683.3
1986(d)	76.3	360.7	165.8	46.5	14.0	11.2	674.6
1987	67.3	350.0	173.5	50.8	15.8	11.5	668.9
1988	63.1	346.9	184.5	55.2	16.3	11.2	677.2
1989	56.5	336.8	190.6	59.9	18.3	12.1	674.2
1990	49.2	325.7	196.1	62.0	18.1	11.7	662.6

(a) Per 1,000 mid-year population of males and females of each age. (b) Ratios for each age-group are calculated by summing the ratios for single years. (c) The sum of all single year ratios. (d) These ratios have been affected by late registrations of births, deaths and marriages in New South Wales.

Source: Marriages, Australia (3306.0).

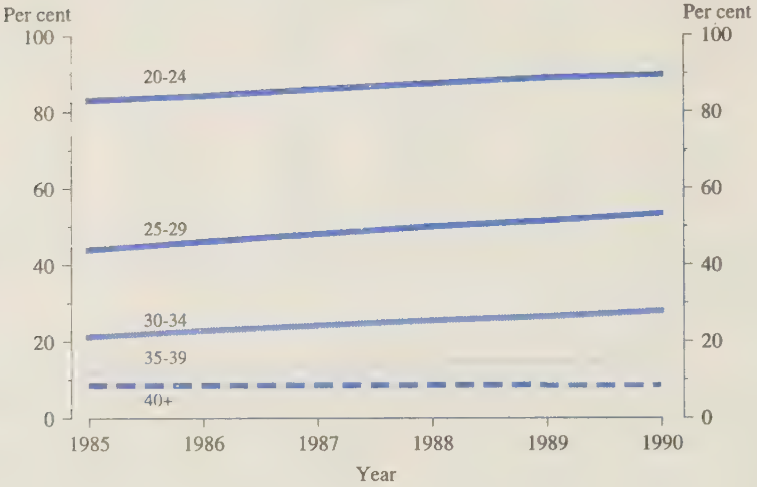
Since 1971 there has been a reversal in the post-war trend towards younger marriages. The median age at first marriage for both males and females is now rising, having increased from 23.3 years in 1971 to 26.4 years in 1990 for males and from 21.0 to 24.3 years for females. The median age for second and subsequent marriages is also rising. There is also a trend towards a narrower gap between the age of the bride and groom at the time of first marriage, having fallen from 2.3 years in 1971 to 2.1 years in 1990.

The increasing median age at first marriage is reflected in first marriage ratios which show declines for both brides and grooms under the age of 25 and increases in the age range 25–34. The discrepancy between ages at first marriage of brides and grooms is also reflected in the lower ratios for grooms under the age of 25. The Index of total first marriages, which is the cumulative total of first marriage ratios at each age, has been declining throughout the last two decades. It shows that the falling crude marriage rate cannot be attributed to changes in the age structure of the population, i.e., that there has been a real reduction in the propensity to marry in the Australian community.

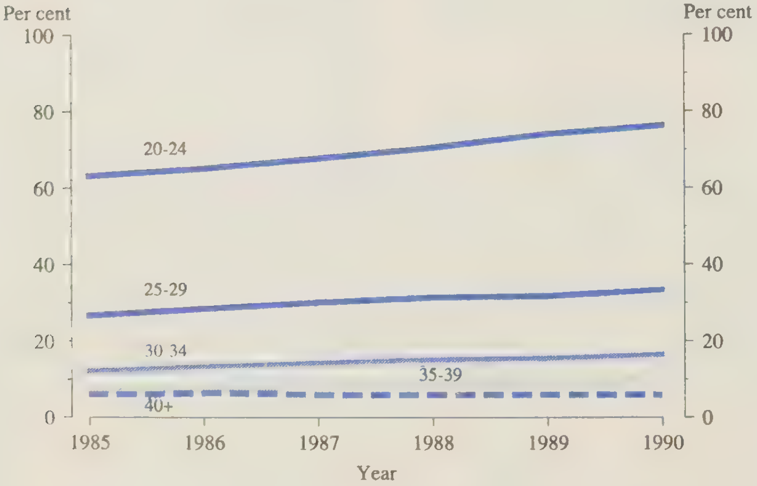
The decline in first marriage ratios under the age of 25 and the increase in the median age at first marriage over the last decade may reflect to some extent the tendency of some couples to live together before getting married. It seems reasonable to postulate that amongst de facto couples a certain proportion will eventually marry, even though at a later age, whereas others will prefer to remain unmarried. Analysis of current trends in marriage is qualified by the absence of any time series data on the formation of de facto relationships. However there is evidence (from the Family Formation Surveys in 1982 and 1986, the 1986 Census and, indirectly, Censuses in 1971, 1976 and 1981) that the number of de facto relationships is growing. At 30 June 1986 there were 204,900 de facto 'couple families' compared with 3,370,100 married couple families.

PROPORTION OF PERSONS NEVER MARRIED BY AGE GROUP, AT 30 JUNE

Males



Females



Source: Estimated Resident Population by Marital Status, Age and Sex, Australia (3220.0).

Divorces

Divorce in Australia comes under the jurisdiction of the *Family Law Act 1975*. This Act, which came into operation on 5 January 1976, provides for a single ground for divorce, namely irretrievable breakdown of marriage, which is established by a minimum one-year separation of the husband and wife. Passing of the Act provided easier and faster access to divorce for either party by its removal of the need to prove fault, together with a reduction of the separation period from five years to one year. After the introduction of the Family Law Act, the number of divorces rose from annual averages of 17,350 to 45,220 between 1971–75 and 1976–80 respectively, while the median duration of marriage of divorcing couples decreased from 12.5 years in 1971 to 10.2 years in 1981, increased slightly to 10.6 in the years to 1986 and then declined again to 10.1 years in 1990.

There is currently a tendency for divorce to occur in the early years of marriage and at an early age. The proportion of divorces taking place within the first five years of marriage was 20.9 per cent in 1990 and within the first 10 years it was 49.4 per cent. The highest divorce rates for both males and females occurred in the 25–29 year age group, with 19.7 per thousand married men and 20.3 per thousand married women completing divorce proceedings. The incidence of divorce in 1990 was 10.8 per thousand married men and 10.9 per thousand married women. After a period between 1982 and 1987 in which a significant decline occurred (from 12.5 to 10.6 per thousand married population) the rate seems to be achieving some stability.

DIVORCES

Period	*Divorces*
Annual averages	
1976–80	45,220
1981–85	42,396
1986–90	40,833
Annual totals	
1985	39,830
1986	39,417
1987	39,725
1988	41,007
1989	41,383
1990	42,635

Source: Divorces, Australia (3307.0).

DIVORCES: DURATION OF MARRIAGE

	Duration of marriage (years)						
	Under 5	5–9	10–14	15–19	20 and over	Total	Median duration of marriage (years)
Year						Per cent	
	AT DATE DECREE MADE ABSOLUTE						
Annual averages							
1976–80	18.6	28.9	18.6	12.3	21.6	100.0	10.6
1981–85	21.0	27.2	19.7	13.2	18.9	100.0	10.4
1986–90	21.4	27.6	17.4	14.0	19.6	100.0	10.2
Annual totals							
1985	21.2	26.4	18.7	14.1	19.5	100.0	10.6
1986	21.7	26.2	17.8	14.3	20.0	100.0	10.6
1987	22.1	26.9	17.3	14.4	19.3	100.0	10.2
1988	21.4	28.1	17.3	14.2	19.1	100.0	10.1
1989	20.9	28.3	17.1	13.9	19.8	100.0	10.2
1990	20.9	28.5	17.3	13.1	20.2	100.0	10.1
	AT DATE OF FINAL SEPARATION						
Annual averages							
1976–80	37.1	24.1	14.8	10.7	13.3	100.0	7.3
1981–85	36.6	23.5	16.5	10.9	12.5	100.0	7.6
1986–90	38.1	22.0	15.2	11.8	12.9	100.0	7.4
Annual totals							
1985	36.6	22.3	16.7	11.6	12.9	100.0	7.7
1986	37.6	21.5	16.0	11.7	13.2	100.0	7.6
1987	38.3	21.7	15.4	11.8	12.8	100.0	7.3
1988	38.5	22.1	15.1	11.8	12.6	100.0	7.3
1989	37.9	22.3	14.9	12.0	12.7	100.0	7.3
1990	38.2	22.4	14.4	11.7	13.0	100.0	7.3

Source: Divorces, Australia (3307.0).

The current low median duration between marriage and final separation combined with increasing average interval between marriage and first birth (*see* Births section above) is having the beneficial effect of reducing the proportion of divorcing couples with children.

The proportion of divorces in which children were involved declined from 61.6 per cent in 1983 to 55.3 per cent in 1989 and rose slightly to 55.6 per cent in 1990. The average number of children per divorce has remained steady at 1.9.

AGE-SPECIFIC DIVORCE RATES PER 1,000 MARRIED POPULATION

Year	Under 25	25–29	30–34	35–39	40–44	45–49	50–54	55–59	60 and over	Total
									Age group (years)	
HUSBAND										
Census years										
1976		17.9	31.6	28.8	23.9	21.2	18.6	15.0	11.1	5.1
1981		13.8	22.4	18.9	16.2	13.5	10.9	8.3	5.2	2.3
Annual totals										
1985		12.2	18.6	17.8	15.8	13.4	10.7	7.7	5.6	2.1
1986		12.1	18.6	17.1	14.8	13.3	11.1	8.3	5.4	2.1
1987		12.3	18.7	17.8	15.0	13.0	10.8	7.8	5.1	2.1
1988		12.2	19.3	18.3	15.6	13.3	11.0	8.0	5.2	2.0
1989		12.9	19.1	17.9	15.3	13.4	11.1	8.1	5.5	2.1
1990		12.9	19.7	18.2	15.7	13.6	11.5	8.5	5.6	2.0
WIFE										
Census years										
1976		22.7	31.5	26.9	22.0	19.2	16.0	12.6	8.8	4.1
1981		18.0	22.0	16.9	14.7	11.8	8.9	6.2	4.1	1.8
Annual totals										
1985		15.3	19.0	16.5	14.4	12.1	9.0	5.7	3.8	1.6
1986		15.9	18.5	15.8	13.7	12.0	9.5	6.0	3.7	1.5
1987		16.6	18.9	16.0	13.8	11.8	9.2	5.7	3.5	1.5
1988		16.8	19.6	16.6	14.1	12.0	9.4	5.7	3.6	1.4
1989		16.9	19.5	16.3	14.1	12.3	9.2	6.1	3.6	1.4
1990		18.3	20.3	16.5	14.3	12.5	9.6	6.3	3.6	1.3

Source: Divorces, Australia (3307.0).

DIVORCES: PERCENTAGE DISTRIBUTION OF THE NUMBER OF CHILDREN OF THE MARRIAGE

Period	*Number of children* 0	1	2	3	4	5 or more	Total divorces	Total children	Average number of children(a)
			—per cent—				no.	no.	no.
1976–80	37.6	22.5	24.3	10.5	3.6	1.5	226,100	276,088	2.0
1981–85	38.8	21.5	26.1	10.1	2.7	0.8	211,979	252,198	1.9
1986–90	42.7	21.1	24.6	8.9	2.3	0.6	204,165	221,906	1.9
1985	39.4	21.1	26.2	10.0	2.6	0.7	39,830	46,800	1.9
1986	40.3	21.2	25.8	9.5	2.5	0.7	39,417	45,231	1.9
1987	41.4	21.7	25.1	9.0	2.2	0.6	39,723	44,050	1.9
1988	42.5	21.5	24.7	8.7	2.2	0.5	41,007	44,395	1.9
1989	44.7	20.4	23.7	8.7	2.1	0.5	41,383	43,317	1.9
1990	44.4	20.5	23.8	8.6	2.3	0.5	42,635	44,913	1.9

(a) Divorces involving one or more children.

Source: Divorces, Australia (3307.0).

Remarriages

In the decade to 1990 the number of remarriages (i.e., marriages involving one or more previously married parties) remained steady but on a higher plateau than in the 1970s. The 1990 total of 38,177 remarriages, which represented 32.6 per cent of all marriages, was typical of the current level. The average number of remarriages in the second half of the 1970s, 1976–80, was 32,900 or 30.9 per cent of all marriages. This was also a period in which numbers remained remarkably steady.

The reason for the sudden rise in remarriages at the beginning of the 1980s was brought about entirely by growth in the numbers of marriages in which one or both parties were divorced at the time of marriage and was an after-effect of the *Family Law Act 1976* (*see* Divorces section above).

Set against rising population numbers, the current plateau in the number of remarriages is resulting in declining remarriage rates. The remarriage rate for males was 59.7 per thousand widowed and divorced male population in 1990, down from 84.2 in 1981. The female rate has fallen from 30.5 in 1981 to 24.9 in 1990. Again (*see* Marriages section above) the absence of data on de facto unions of people previously married qualifies analysis of current trends. The discrepancy between male and female remarriage rates is caused by longer female survival and therefore greater numbers of females being available for remarriage at older ages.

MARRIAGES IN WHICH ONE OR BOTH PARTNERS HAVE BEEN PREVIOUSLY MARRIED RELATIVE PREVIOUS MARITAL STATUS

	Both partners divorced		*One partner divorced*		*Other(a)*		
Period	*No.*	*Per cent*	*No.*	*Per cent*	*No.*	*Per cent*	*Total (No.)*
Annual averages							
1976–80	9,961	30.3	19,924	60.6	3,011	9.2	32,896
1981–85(b)	12,125	32.7	22,399	60.5	2,511	6.8	37,035
1986–90(b)	12,658	33.2	23,111	60.6	2,353	6.2	38,122
Annual totals							
1985(b)	12,698	33.3	22,973	60.4	2,383	6.3	38,054
1986(b)	12,870	33.5	22,868	59.9	2,528	6.5	38,266
1987	12,438	33.2	22,594	60.4	2,396	6.4	37,428
1988	12,709	33.1	23,359	60.8	2,348	6.1	38,416
1989	12,471	32.5	23,496	61.3	2,359	6.2	38,326
1990	12,802	33.5	23,239	60.9	2,136	5.6	38,177

(a) Includes 'not stated' previous marital status. (b) The statistics for 1984, 1985 and 1986 were affected by late registrations in New South Wales.

Source: Marriages, Australia (3306.0).

REMARRIAGES, DIVORCED AND WIDOWED PERSONS AGED 15 AND OVER

Year	Total marriages	Remarriages of persons previously			Remarriage rates		
		Widowed	Divorced	Total	Widowed	Divorced	Total
			MALES				
					(a)	(b)	(c)
Census years							
1976	109,973	3,777	19,404	23,181	29.6	201.2	103.5
1981	113,905	3,152	23,293	26,445	23.1	131.1	84.2
Annual totals							
1985	115,493	2,843	25,129	27,972	19.8	100.7	71.2
1986	114,913	2,952	25,285	28,237	20.9	101.8	72.5
1987	114,113	2,920	24,602	27,522	19.9	89.3	65.2
1988	116,816	2,845	25,281	28,126	19.1	87.5	64.2
1989	117,176	2,855	25,124	27,979	18.9	83.4	61.8
1990	116,959	2,729	25,221	27,950	17.9	80.0	59.7
			FEMALES				
					(d)	(e)	(f)
Census years							
1976	109,973	4,378	18,161	22,539	7.9	146.3	33.3
1981	113,905	3,727	21,870	25,597	6.1	96.9	30.5
Annual totals							
1985	115,493	3,414	23,240	26,654	5.3	75.7	27.9
1986	114,913	3,564	23,279	26,843	5.6	74.8	28.2
1987	114,113	3,393	22,783	26,176	5.1	67.1	26.1
1988	116,816	3,324	23,496	26,820	5.0	65.8	26.1
1989	117,176	3,357	23,313	26,670	4.9	62.5	25.4
1990	116,959	3,185	23,622	26,807	4.6	60.5	24.9

(a) Per thousand widowed males. (b) Per thousand divorced males. (c) Per thousand widowed and divorced males. (d) Per thousand widowed females. (e) Per thousand divorced females. (f) Per thousand widowed and divorced females.

Source: Marriages, Australia (3306.0).

MIGRATION

Statistics of overseas arrivals and departures are compiled from passenger cards which are collected from all incoming and outgoing travellers under the *Migration Act 1958*. Earlier statistics were obtained from Shipping and Plane manifests required under various Acts.

Migration to Australia

Migration to Australia is presently regulated by the *Migration Act 1958* which came into force on 1 June 1959. Any person entering Australia after the introduction of the Act without having been granted an entry permit or who is not within an exempted class is a prohibited non-citizen. Exempted persons include New Zealand citizens, diplomatic and consular representatives of other countries, and seamen and air crew who enter Australian ports while on leave.

Until recently, total net gains (i.e., the excess of total arrivals over total departures) provided a satisfactory measure of the population gain from international migration. In recent years, however, because of the large increase in short-term movements (8.7 million in 1990), distortions arising from seasonality of these movements have become very large. For the purpose of estimating the population of Australia and the States and Territories, therefore, the migration component of population growth has been measured since 1 July 1971 by reference to permanent and long-term movements only. Net permanent and long-term migration is estimated to have directly contributed 42.5 per cent of the total population increase between 1971 and 1990.

Throughout the last two decades, British migrants have remained the most numerous group of settlers, although they have declined in absolute numbers and as a proportion of total settler arrivals. In the first half of the 1970s they comprised 41.2 per cent of settler arrivals but for the second half of the 1980s, this proportion had fallen to 19.5 per cent. At the same time the number of settlers from other European sources, such as Italy, Greece, Yugoslavia, Germany and the Netherlands, have also declined. Indirectly, though, the fall in British and European immigration has been somewhat offset by substantial increases in settlers arriving from New Zealand, although these have declined over the last two years.

BIRTHPLACE OF SETTLER ARRIVALS(a)

	'000				Per cent			
Birthplace	*1971–75*	*1976–80*	*1981–85*	*1986–90*	*1971–75*	*1976–80*	*1981–85*	*1986–90*
United Kingdom and Ireland	226.0	94.8	115.9	123.7	41.2	25.7	25.2	19.5
New Zealand	17.5	46.5	48.6	80.7	3.2	12.6	10.6	12.7
Italy	18.4	6.6	4.3	2.3	3.4	1.8	0.9	0.4
Yugoslavia	40.3	7.9	7.3	12.7	7.3	2.2	1.6	2.0
Greece	21.1	5.6	3.9	3.5	3.8	1.5	0.8	0.6
Vietnam	(b)	36.4	47.2	43.1	(b)	9.8	10.3	6.8
Germany	10.3	5.1	11.6	6.3	1.9	1.4	2.5	1.0
United States of America	19.5	6.1	8.4	9.6	3.6	1.7	1.8	1.5
Lebanon	12.8	18.1	7.0	15.1	2.3	4.9	1.5	2.4
Netherlands	5.6	4.7	6.4	2.6	1.0	1.3	1.4	0.4
India	12.1	4.5	8.3	15.0	2.2	1.2	1.8	2.4
South Africa	6.3	11.2	12.2	16.9	1.1	3.0	2.7	2.7
Poland	2.2	3.6	14.8	8.4	0.4	1.0	3.2	1.3
Turkey	11.6	5.0	3.7	5.8	2.1	1.4	0.8	0.9
Philippines	3.1	8.4	15.4	37.4	0.6	2.3	3.4	5.9
Malaysia	4.8	8.7	10.4	28.7	0.9	2.4	2.3	4.5
Hong Kong	(b)	5.4	9.9	32.4	(b)	1.5	2.2	5.1
Kampuchea	(b)	2.4	10.3	5.0	(b)	0.7	2.2	0.8
Other	136.8	88.1	113.8	186.6	24.9	23.9	24.8	29.3
Total	**548.4**	**369.1**	**459.4**	**635.8**	**100.0**	**100.0**	**100.0**	**100.0**

(a) Permanent arrivals only. (b) The statistics for this country are not separately available but are included in the category 'Other'.
Source: Overseas Arrivals and Departures, Australia (3404.0).

Since the first large intakes of Vietnamese refugees in the late 1970s increasing numbers of settlers have been arriving from Asian countries. Growth is currently strongest in the numbers arriving from Vietnam, the Philippines, Malaysia and Hong Kong, which combined, have accounted for 22.3 per cent of the settler arrivals between 1986 and 1990.

Since 1978–79, family immigration has increased in importance, with migration of family members now amounting to over 40 per cent of settler arrivals. Another recent trend has been the increase in non-visaed migrants to Australia. These are primarily New Zealand citizens migrating under the Trans-Tasman Travel Arrangement under which Australian and New Zealand citizens may enter each country without the need to obtain visas or entry permits. Other non-visaed migrants include children born to Australian citizens overseas, persons who have acquired Australian citizenship overseas and residents of the External Australian Territories of Norfolk Island, the Cocos (Keeling) Islands and Christmas Island. New Zealand migrants increased from 17,500 to 80,700 between 1971–75 and 1986–90 and as a proportion of total migrants from 3.2 per cent to 12.7 per cent between those periods. In 1990, New Zealanders comprised 7.4 per cent of total settler arrivals for the year.

The age composition of settlers has been younger than that of Australia's population for some time and reflects the predominance of young families arriving in Australia. Persons aged 65 years and over represented 3.6 per cent of migrants arriving between 1971 and 1985, which contrasts with the share of these people in Australia's population of 10.5 per cent in 1986. In 1990, 2.9 per cent of settlers were aged 65 years and over, whereas the share in the total population has risen to 11.2 per cent.

PERMANENT ARRIVALS BY SEX AND AGE, PERCENTAGE DISTRIBUTION

	Age group						
Period	*0–4*	*5–14*	*15–24*	*25–44*	*45–64*	*65 and over*	*Total number*
			MALES				
Annual averages							
1976–80	13.4	19.4	20.9	34.4	8.1	3.8	36,830
1981–85	12.2	19.1	19.0	38.4	7.8	3.6	46,760
1986–90	10.8	18.1	16.5	42.3	9.0	3.3	63,110
1985	11.4	18.3	19.0	38.8	8.8	3.7	41,200
1986	10.4	18.2	18.3	40.0	9.1	3.9	51,000
1987	11.2	18.0	16.6	41.8	8.7	3.7	63,800
1988	11.0	18.3	15.6	43.0	8.9	3.1	75,720
1989	10.7	18.1	16.7	42.0	9.5	3.1	64,490
1990	10.7	17.7	15.5	44.9	8.6	2.6	60,570
			FEMALES				
Annual averages							
1976–80	12.5	17.3	21.9	32.9	10.5	4.9	37,000
1981–85	11.8	17.4	19.3	37.6	9.4	4.5	45,120
1986–90	10.2	16.4	18.2	41.5	9.8	3.7	64,040
1985	10.5	16.2	19.7	38.6	10.5	4.6	40,800
1986	10.0	15.8	19.2	40.4	10.3	4.3	52,330
1987	10.7	16.3	18.0	40.8	10.0	4.2	64,490
1988	10.6	17.1	17.4	41.8	9.5	3.5	75,830
1989	9.9	16.6	18.5	41.4	9.9	3.6	66,570
1990	10.0	16.3	18.1	43.3	9.2	3.1	61,000
			PERSONS				
Annual averages							
1976–80	13.0	18.3	21.4	33.6	9.3	4.3	73,830
1981–85	12.0	18.3	19.2	38.0	8.6	4.0	91,890
1986–90	10.5	17.2	17.4	41.9	9.4	3.5	127,160
1985	11.0	17.2	19.3	38.7	9.6	4.2	82,000
1986	10.2	17.0	18.8	40.2	9.7	4.1	103,330
1987	11.0	17.2	17.3	41.3	9.4	4.0	128,290
1988	10.8	17.7	16.5	42.4	9.2	3.3	151,550
1989	10.3	17.3	17.6	41.7	9.7	3.3	131,060
1990	10.4	17.0	16.8	44.1	8.9	2.9	121,560

Source: Unpublished ABS data.

Despite the comparative youthfulness of the settlers, their median age has been rising. In 1971 it was 23.1 years and in 1990 it was 27.1 years. This rise has been particularly marked since 1981, when the numbers of migrants under the 'family reunion' category began to increase. At the younger ages, declines have taken place since the mid-1970s in the proportion of settlers in the 15–24 year age group while there has been an increase in the proportion of settlers in the 25–44 year age group. The age structure has remained relatively stable over the last five years.

The sex ratio of settlers tends to be high in years of large intake, and falls as intake declines. There was a rise in the sex ratio in the first half of the 1980s as settler arrivals increased, but in the last five years the sex ratio has remained below 100.0 and, since traditionally male settlers have predominated, has therefore been historically low. In 1990 the sex ratio was 99.3 males per 100 females. In 1990, males predominated in the 0–14 year age group and the 25–44 year age group.

PERMANENT ARRIVALS: SEX RATIOS(a) BY AGE

Period	0–14	15–24	25–44	45–64	65+	Total
Annual averages						
1976–80	109.6	95.1	104.1	76.4	76.8	99.5
1981–85	111.3	101.7	105.7	85.1	83.2	103.6
1986–90	106.5	89.3	100.3	90.5	86.1	98.5
1985	112.4	97.4	101.6	84.6	82.5	101.0
1986	108.1	93.0	96.6	86.5	88.1	97.5
1987	106.8	91.5	101.4	86.4	85.6	98.9
1988	105.3	89.9	102.6	93.8	89.1	99.9
1989	105.1	87.2	98.1	93.1	84.4	96.9
1990	107.4	85.0	102.9	92.5	83.4	99.3

(a) The number of males per 100 females.
Source: Unpublished ABS data.

Refugees

Since 1945, Australia has accepted more than 460,000 refugees or displaced persons, including 170,000 from Europe who were displaced by World War II and its aftermath. Australia presently accepts refugees from about 40 countries. The largest element in recent years in Australia's refugee intake has been the Indo-Chinese program which currently accounts for about 40 per cent of the number of refugee arrivals. Numbers arriving from the Middle East are the second largest component.

REFUGEE ARRIVALS(a)

Period	Number
Annual averages	
1976–80	12,558
1981–85	17,072
1986–90	10,995
Annual totals	
1985	13,089
1986	10,196
1987	12,255
1988	10,303
1989	11,883
1990	10,339

(a) Includes arrivals under the Special Humanitarian Program instituted late in 1981.
Source: Department of Immigration, Local Government and Ethnic Affairs.

Australia is one of 97 countries which have become party to an international convention and protocol on the status of refugees and, in so doing, have taken on certain international legal obligations to assist refugees. The final determination of a refugee's status and the decision to accept refugees for resettlement in Australia rests with the Australian Government. Australia is also a member of the Executive Committee of the United Nations High Commission for Refugees (UNHCR). Australia's response to refugee situations is twofold. Through aid programs directed principally through UNHCR, refugees are offered protection and assistance in countries of first refuge. Those refugees for whom other durable solutions are not feasible may be offered resettlement (in Australia) if they have relatives in Australia, other close ties with Australia or the potential for successful settlement in their own right. Such refugees must also be presented to Australia by the UNHCR as being registered or otherwise eligible for resettlement.

Permanent departures

An important component constraining population growth is the level of population loss due to emigration. Between 1971 and 1990, total permanent departures numbered 535,885 persons or an average of 26,794 per year, a level which is 26.6 per cent of the total permanent arrivals over this period. The ratio of departures to arrivals in 1990 is 25.0 per cent, the highest ratio since 1984.

PERMANENT DEPARTURES AND ARRIVALS

Year	Permanent departures: Former settlers	Permanent departures: Other residents	Permanent departures: Total	Permanent arrivals	Ratio of departures to permanent arrivals
1976–80	69,133	49,585	118,718	369,297	0.321
1981–85	64,122	45,027	109,149	459,420	0.238
1986–90	57,610	57,140	114,750	635,790	0.180
1985	10,020	8,600	18,620	82,000	0.227
1986	9,960	8,860	18,820	103,330	0.182
1987	11,010	9,400	20,410	128,290	0.159
1988	10,480	9,840	20,320	151,550	0.134
1989	11,940	12,890	24,830	131,060	0.189
1990	14,220	16,150	30,370	121,560	0.250

Source: Overseas Arrivals and Departures, Australia (3404.0).

Of the two categories of permanent departures, i.e., 'former settlers' and 'other residents', it has been under the first category that there has been the greatest outflow of persons. Between 1971 and 1990, 'former settlers' represented 60.5 per cent of all permanent departures. The departure of 'other residents' has fluctuated from a low of 8,600 to the current record high level of 16,200 persons. The number of former settlers departing has also been steadily rising over the last three years. Levels of permanent departures are now similar to those experienced in the mid-1970s.

Internal migration

Information on internal migration (migration from one part of Australia to another) has been available from the population censuses since 1971. The Census asks people to state their place of usual residence on Census night and also on the same date one year ago and five years ago. Comparison of these addresses has provided data on interstate migration and also (for the 1986 and 1991 Census only) intrastate movement. Movers are classified by age, sex, birthplace and other selected characteristics. These census questions also provide data on where migrants, recently arrived from overseas, are now living.

Postcensal data on interstate migration are estimated, for quarterly intervals, from information on interstate changes of address advised to the Health Insurance Commission in the process of administering Medicare. (No comprehensive postcensal data are compiled on intrastate migration.) Prior to 1986 postcensal interstate migration data were based on changes of address advised to the Department of Social Security by recipients of the Family Allowance.

Interstate migration has had an important influence on the distribution of Australia's population amongst the States and Territories. Historically it has been much more important than differential fertility or mortality and in many periods more important than overseas migration. Net interstate migration tends to be volatile in nature and large gains and losses have been recorded by all States. The table below presents estimates of net interstate migration for the financial years from 1981–82 to 1990–91. There has been a trend over the past decade in most States for net interstate levels to follow a cyclical pattern. From a peak in 1981–82 they contracted towards the middle of the decade before rising to another peak in 1988–89. Levels for 1989–90 and 1990–91 are below this peak for most States.

NET INTERSTATE MIGRATION

Year ended 30 June	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*
1982	–19.6	–14.4	35.5	–4.9	3.6	–2.0	2.1	–0.2
1983	–17.2	–5.1	20.8	–0.3	1.5	–1.2	0.5	1.0
1984	–10.3	–3.3	10.0	0.6	0.7	0.7	0.7	0.9
1985	–9.3	–5.8	12.9	–2.3	2.0	0.8	0.6	1.2
1986	–12.5	–13.2	16.5	–1.4	9.4	–0.1	–0.5	1.8
1987	–10.3	–13.4	18.1	–3.2	10.4	–2.8	–1.4	2.7
1988	–14.2	–14.8	26.2	–0.3	8.4	–3.4	–4.6	2.8
1989	–39.1	–12.9	45.3	0.8	9.5	–1.3	–3.0	0.7
1990	–37.0	–8.2	36.6	0.7	7.1	1.4	–2.6	2.1
1991	–18.8	–16.2	27.4	3.1	2.5	–0.2	–2.2	4.2

Source: Australian Demographic Statistics (3101.0).

New South Wales has experienced substantial net losses, particularly to Queensland, but also to Western Australia and the Australian Capital Territory. The loss of 39.1 thousand in the year ended June 1989 was the largest ever recorded by this or any other State or Territory over a twelve month period.

Victoria has experienced net losses throughout the period. The most popular destinations are Queensland, New South Wales and Western Australia.

Queensland has made major net gains, consistently ranking as the favourite destination for Australians moving interstate. Its net gain of 45.3 thousand in the year ended June 1989 was the highest ever recorded by it or any other State or Territory over a twelve month period.

South Australia has experienced small net gains and losses. It is frequently the State with the smallest net interstate movement per head of population.

Western Australia has made consistent net gains reaching a higher plateau in the second half of the 1980s when it ranked as the second most popular destination for Australians moving interstate. The major sources of new arrivals are New South Wales and Victoria.

Tasmania has experienced small net gains and losses following the regular cyclical pattern mentioned above.

The Northern Territory made consistent net gains in the first half of the 1980s but has experienced small losses in more recent years. The Australian Capital Territory, with the exception of 1981–82, has made small net gains throughout the period. For both Territories the levels of net interstate movement per head of population are high.

During the fifteen years from 1971 to 1986, the flow of persons interstate increased. Census data indicate that for the three five-year periods, 1971–76, 1976–81 and 1981–86, the number of interstate movers was 569,500, 651,200 and 716,555 respectively. This increase was evident for both males and females, with the sex ratio of interstate flows remaining virtually constant at 107.

Proportional to total population, the number of interstate movers numbered 46 per thousand in the 1971–76 intercensal period, rising to 49 per thousand during 1976–81 and 50 per thousand in the 1981–86 period.

INTERSTATE MOVERS BY AGE, MOBILITY RATES(a) AND SEX RATIOS(b)

Age group years	*Number of interstate movers*			*Mobility rates*		
	1971–76	*1976–81*	*1981–86*	*1971–76*	*1976–81*	*1981–86*
1–4	. .	. .	. .	. .	. .	. .
5–9	69,810	75,603	69,830	56	61	60
10–14	49,979	59,096	62,803	40	46	49
15–19	49,899	53,025	59,331	41	42	45
20–24	83,239	89,139	92,223	75	72	72
25–29	99,102	100,337	110,169	88	85	85
30–34	64,271	85,729	89,571	68	72	73
35–39	42,174	55,606	73,719	52	57	60
40–44	27,380	34,104	44,539	38	42	45
45–49	22,328	21,948	27,629	29	30	34
50–54	17,993	19,155	19,134	24	25	27
55–59	12,933	16,929	18,700	21	23	26
60–64	11,008	14,769	18,214	20	25	26
65 and over	19,402	25,745	30,693	16	18	19
Total	**569,518**	**651,185**	**716,555**	**46**	**49**	**50**
Sex ratios						
Interstate movers	106	107	107			
Total population	100	100	100			

(a) Interstate movers per 1,000 population of Australian residents enumerated in the Census at the end of the period. (b) The number of males per 100 females.

Source: Interstate Migration, Australia, Census of Population and Housing (3411.0).

Interstate mobility rates by age have revealed a clear and consistent life cycle pattern in the propensity of persons to move interstate. Data for 1971–76, 1976–81 and 1981–86 show that there was, initially, an above-average rate for the 5–9 year age group (because of the high mobility of their parents). This was followed by a period of below average mobility in the early teenage years (important years at school). Mobility was highest at ages 20–39 years, from whence it steadily declined with age. The highest mobility rates occurred at ages 25–29 years and the lowest at ages 65 and over. Females were generally less likely to move interstate than males, with differences being most pronounced during the child-rearing ages from 25 to 45 years.

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FOR MORE INFORMATION

The ABS has a far wider range of information on Australia than that contained in the *Year Book*. Information is available in the form of regular publications, electronic data services, special tables and from investigations of published and unpublished data.

For further information contact ABS Information Services at one of the addresses listed on the page facing the Introduction to the *Year Book*.

Chapter Seven

Labour

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THE LABOUR FORCE

Labour force statistics are collected in a monthly population survey of a sample of dwellings across Australia. The survey provides timely estimates of the labour force status of the Australian population, together with basic demographic data to enable various characteristics of the employed and unemployed to be analysed.

Fundamental to the measurement of employment and unemployment is the concept of the labour force. The labour force is defined broadly as those persons aged 15 and over who during a particular week are either employed or unemployed. The labour force represents the total official supply of labour available to the labour market during a given week.

The Australian labour force conceptual framework is set out schematically on the next page.

This section presents some summary statistics on the civilian labour force drawn from the ABS monthly Labour Force Survey and associated supplementary surveys. Set out below is a range of characteristics such as whether persons are employed, unemployed or not in the labour force, together with demographic information (i.e., age, sex, marital status, etc.). Further details concerning the scope, coverage and survey methods (as well as more detailed statistics) of the labour force and supplementary surveys can be found in the publications listed at the end of this chapter.

Characteristics of the labour force

The size and composition of the labour force is not static over time. Changes in the labour force are caused by an increase/decrease in labour force participation or in the population aged 15 and over.

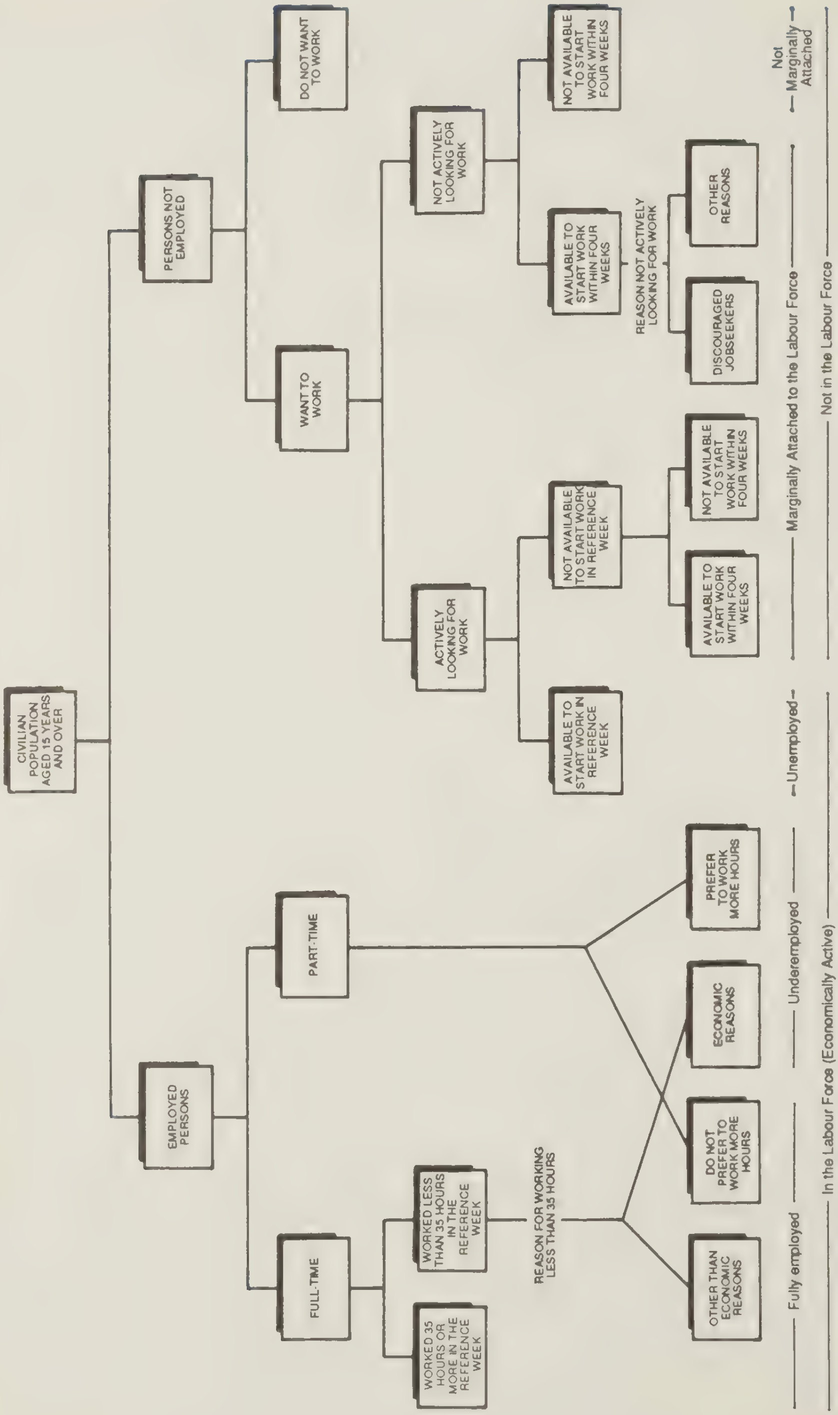
LABOUR FORCE: SOURCES OF CHANGES IN SIZE
(per cent)

	Males			*Females*			*Persons*		
		Percentage points change due to			*Percentage points change due to*			*Percentage points change due to*	
Annual average(a)	*Percentage change in labour force*	*Population growth*	*Labour force participation*	*Percentage change in labour force*	*Population growth*	*Labour force participation*	*Percentage change in labour force*	*Population growth*	*Labour force participation*
1985–1986	2.1	2.1	0.0	5.8	2.0	3.7	3.5	2.0	1.5
1986–1987	1.8	2.2	–0.4	5.0	2.1	2.8	3.1	2.1	0.9
1987–1988	1.7	2.1	–0.4	3.5	2.1	1.4	2.4	2.1	0.3
1988–1989	1.9	2.1	–0.2	4.1	2.0	2.0	2.8	2.1	0.7
1989–1990	2.4	1.9	0.5	4.7	1.8	2.8	3.3	1.9	1.4
1990–1991	1.6	1.8	–0.2	2.6	1.7	0.8	2.0	1.7	0.3

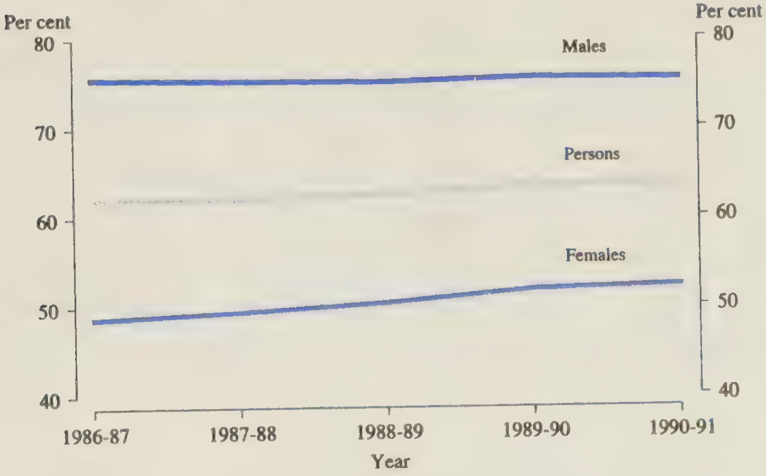
(a) Averages calculated on monthly estimates.
Source: The Labour Force, Australia (6203.0).

One of the most important labour force measurements is the participation rate, which represents the proportion of the working age population who are in the labour force. Analysis of the participation rates provides the basis for monitoring changes in the size and composition of labour supply, particularly in terms of age, sex and marital status. Since 1986, the trend participation rate for males has remained relatively steady although it declined in the last six months of 1990–91. However, the female trend participation rate has increased from 47.5 per cent in January 1986 to a peak of 52.4 per cent in mid-1990.

THE AUSTRALIAN LABOUR FORCE FRAMEWORK


CIVILIAN POPULATION AGED 15 YEARS AND OVER
EMPLOYED PERSONS
PERSONS NOT EMPLOYED
FULL-TIME
PART-TIME
WANT TO WORK
DO NOT WANT TO WORK
WORKED 35 HOURS OR MORE IN THE REFERENCE WEEK
WORKED LESS THAN 35 HOURS IN THE REFERENCE WEEK
REASON FOR WORKING LESS THAN 35 HOURS
OTHER THAN ECONOMIC REASONS
DO NOT PREFER TO WORK MORE HOURS
ECONOMIC REASONS
PREFER TO WORK MORE HOURS
ACTIVELY LOOKING FOR WORK
NOT ACTIVELY LOOKING FOR WORK
AVAILABLE TO START WORK IN REFERENCE WEEK
NOT AVAILABLE TO START WORK IN REFERENCE WEEK
AVAILABLE TO START WORK WITHIN FOUR WEEKS
NOT AVAILABLE TO START WORK WITHIN FOUR WEEKS
AVAILABLE TO START WORK WITHIN FOUR WEEKS
NOT AVAILABLE TO START WORK WITHIN FOUR WEEKS
REASON NOT ACTIVELY LOOKING FOR WORK
DISCOURAGED JOBSEEKERS
OTHER REASONS
Fully employed
Underemployed
Unemployed
Marginally Attached to the Labour Force
Not Marginally Attached
In the Labour Force (Economically Active)
Not in the Labour Force

PARTICIPATION RATES, ANNUAL AVERAGE



Source: The Labour Force, Australia (6203.0).

The following two tables provide more detailed information on the labour force status of persons. The first table presents the age and sex composition of the total labour force. The second table shows changes in labour force status over time.

CIVILIAN LABOUR FORCE, BY AGE, ANNUAL AVERAGE(a), 1990–91

	Number ('000)					*Participation rate (per cent)*				
		Females					*Females*			
Age group	*Males*	*Married*	*Not married*	*Total*	*Persons*	*Males*	*Married*	*Not married*	*Total*	*Persons*
15–64	4,908.6	2,082.1	1,427.8	3,509.9	8,418.4	84.9	59.2	66.5	61.9	73.6
15–19	418.3	14.1	374.3	388.4	806.8	59.6	56.1	57.7	57.7	58.6
20–24	620.0	139.8	388.7	528.5	1,148.5	89.7	67.5	83.8	78.2	84.0
25–34	1,324.6	609.3	310.5	919.8	2,244.4	94.5	61.3	77.3	65.9	80.2
35–44	1,234.6	740.3	186.5	926.8	2,161.4	94.5	70.8	74.5	71.5	83.0
45–54	849.2	444.2	115.9	560.2	1,409.3	89.9	61.8	64.5	62.3	76.4
55–59	276.5	94.2	33.7	127.8	404.4	75.2	34.5	39.7	35.7	55.7
60–64	185.3	40.3	18.1	58.4	243.8	50.7	15.9	16.0	15.9	33.3
65+	75.3	17.2	11.4	28.6	103.9	9.1	3.7	1.8	2.6	5.4
Total	**4,983.9**	**2,099.3**	**1,439.2**	**3,538.5**	**8,522.4**	**75.4**	**52.7**	**51.5**	**52.2**	**63.7**

(a) Averages calculated on monthly estimates.
Source: The Labour Force, Australia (6203.0).

CIVILIAN POPULATION AGED 15 AND OVER: LABOUR FORCE STATUS

Annual average(a)	Employed	*Unemployed* Looking for full-time work	Looking for part-time work	Total	Labour force	Not in the labour force	Civilian population aged 15 years and over	Unemployment rate	Participation rate
							'000		per cent
				MALES					
1985–86	4,197.5	312.5	28.2	340.7	4,538.1	1,441.6	5,979.8	7.5	75.9
1986–87	4,254.1	336.1	29.8	365.9	4,620.0	1,490.1	6,110.1	7.9	75.6
1987–88	4,354.4	310.7	34.3	345.0	4,699.4	1,540.8	6,240.2	7.3	75.3
1988–89	4,494.3	263.4	32.4	295.9	4,790.2	1,580.6	6,370.8	6.2	75.2
1989–90	4,622.2	248.2	34.4	282.6	4,904.7	1,587.7	6,492.4	5.8	75.5
1990–91	4,562.9	377.0	44.0	421.0	4,983.9	1,623.1	6,606.9	8.4	75.4
				FEMALES					
1985–86	2,662.5	174.3	76.5	250.8	2,913.3	3,237.1	6,150.4	8.6	47.4
1986–87	2,790.2	189.4	79.8	269.3	3,059.5	3,221.1	6,280.6	8.8	48.7
1987–88	2,901.9	183.1	82.4	265.5	3,167.4	3,244.9	6,412.3	8.4	49.4
1988–89	3,056.9	160.9	78.3	239.2	3,296.0	3,246.8	6,542.8	7.3	50.4
1989–90	3,218.1	154.8	77.6	232.4	3,450.5	3,212.4	6,662.9	6.7	51.8
1990–91	3,245.9	202.0	90.5	292.6	3,538.5	3,238.4	6,776.9	8.3	52.2

(a) Averages calculated on monthly estimates.

Source: The Labour Force, Australia (6203.0).

The relationship between the education system and the labour force is illustrated in the following two tables. Firstly the high level of labour force participation among persons who were until recently full-time students is shown. The second table equates the level of educational attainment with the level of labour force activity.

LEAVERS FROM EDUCATIONAL INSTITUTIONS(a)
LABOUR FORCE STATUS AND AGE, MAY 1991

Labour force status	*Leavers aged 15 to 19* Males	Females	Persons	*Leavers aged 20 to 24* Males	Females	Persons	*Total(b)* Males	Females	Persons
					— '000 —				
Labour force	80.4	75.0	155.4	32.3	43.1	75.4	140.7	148.6	289.3
Employed	56.6	51.3	107.8	24.3	34.4	58.6	100.7	109.1	209.8
Full time	43.4	32.8	76.2	18.1	24.1	42.2	78.2	71.3	149.5
Part time	13.2	18.4	31.6	6.2	10.2	16.4	22.5	37.8	60.3
Unemployed	23.9	23.7	47.6	8.0	8.7	16.7	40.0	39.5	79.5
Not in labour force	6.2	6.7	12.9	*1.1	4.4	5.5	8.7	18.5	27.2
Total	**86.6**	**81.7**	**168.3**	**33.4**	**47.4**	**80.9**	**149.4**	**167.1**	**316.5**
					— per cent —				
Unemployment rate	29.7	31.6	30.6	24.8	20.2	22.2	28.4	26.6	27.5
Participation rate	92.8	91.8	92.3	96.6	90.8	93.2	94.2	88.9	91.4

(a) Leavers from educational institutions are persons who were full-time students at some time in the previous year but are not currently full-time students. (b) Includes leavers aged 25 to 64.

Source: Transition from Education to Work, Australia (6227.0).

CIVILIAN POPULATION AGED 15 TO 69(a): EDUCATIONAL ATTAINMENT AND LABOUR FORCE STATUS, FEBRUARY 1991

	Employed								
	Full time	*Part time*	*Total*	*Unemployed*	*Labour force*	*Not in labour force*	*Total*	*Unemployment rate*	*Participation rate*
Educational attainment							*'000*		*per cent*
MALES									
With post-school qualifications	2,213.4	116.7	2,330.0	154.4	2,484.5	303.1	2,787.5	6.2	89.1
Degree	522.1	29.4	551.5	21.2	572.7	48.8	621.5	3.7	92.1
Trade qualification or apprenticeship	1,103.3	48.5	1,151.8	81.2	1,233.0	177.5	1,410.5	6.6	87.4
Certificate or diploma	570.8	37.3	608.1	47.6	655.7	72.6	728.4	7.3	90.0
Other	17.1	*1.4	18.6	4.5	23.0	4.1	27.1	19.5	85.0
Without post-school qualifications(b)	1,899.1	182.6	2,081.7	287.2	2,369.0	566.1	2,935.1	12.1	80.7
Attended highest level of secondary school available	519.8	85.2	605.0	70.1	675.2	120.6	795.8	10.4	84.8
Did not attend highest level of secondary school available	1,367.7	95.8	1,463.4	215.9	1,679.4	431.0	2,110.4	12.9	79.6
Left at age									
18 and over	29.2	3.7	32.9	9.4	42.2	6.4	48.7	22.2	86.8
16 or 17	557.8	35.0	592.8	83.4	676.2	66.0	742.2	12.3	91.1
14 or 15	685.9	48.2	734.2	104.7	838.8	258.3	1,097.1	12.5	76.5
13 and under	94.7	8.9	103.6	18.5	122.1	100.4	222.5	15.1	54.9
Never attended school	4.4	*0.9	5.3	*0.4	5.8	11.5	17.3	*7.7	33.5
Still at school	*0.2	63.5	63.8	23.3	87.1	217.8	304.9	26.8	28.6
Total	**4,112.7**	**362.8**	**4,475.5**	**465.0**	**4,940.5**	**1,087.0**	**6,027.5**	**9.4**	**82.0**
FEMALES									
With post-school qualifications	922.9	499.3	1,422.2	114.9	1,537.0	571.6	2,108.6	7.5	72.9
Degree	240.6	82.9	323.4	23.0	346.5	79.3	425.7	6.6	81.4
Trade qualification or apprenticeship	55.8	34.5	90.3	7.0	97.3	63.9	161.2	7.2	60.4
Certificate or diploma	618.3	377.6	995.9	83.6	1,079.6	421.3	1,500.9	7.7	71.9
Other	8.1	4.3	12.4	*1.2	13.7	7.1	20.8	*9.1	65.7
Without post-school qualifications(b)	973.3	703.9	1,677.2	199.1	1,876.3	1,680.6	3,556.9	10.6	52.8
Attended highest level of secondary school available	295.7	194.1	489.8	62.7	552.4	258.9	811.4	11.3	68.1
Did not attend highest level of secondary school available	670.6	504.8	1,175.4	134.9	1,310.3	1,398.9	2,709.2	10.3	48.4
Left at age									
18 and over	13.4	7.7	21.0	3.6	24.7	18.4	43.0	14.7	57.4
16 or 17	304.9	195.7	500.6	56.9	557.5	341.8	899.3	10.2	62.0
14 or 15	317.1	273.1	590.2	66.1	656.3	850.1	1,506.4	10.1	43.6
13 and under	35.2	28.3	63.6	8.2	71.7	188.7	260.4	11.4	27.5
Never attended school	*1.7	*1.6	*3.3	*0.5	3.8	16.2	20.0	*13.3	18.9
Still at school	*0.2	76.7	76.9	21.8	98.7	194.2	292.9	22.0	33.7
Total	**1,896.4**	**1,279.9**	**3,176.2**	**335.7**	**3,511.9**	**2,446.4**	**5,958.3**	**9.6**	**58.9**

(a) Excludes visitors to private dwellings, some patients in hospitals and sanatoriums and inmates of reformatories, gaols, etc.
(b) Includes persons for whom secondary school qualifications could not be determined.

Source: Labour Force Status and Educational Attainment, Australia (6235.0).

The unemployment rate for the overseas born in the Australian labour force at May 1991 was 10.8 per cent compared with the unemployment rate for the entire labour force of 9.5 per cent. The unemployment rate for Australian born persons was 9.0 per cent. Of overseas born persons, those from Vietnam had the highest unemployment rate — 22 per cent and those from the Netherlands had the lowest unemployment rate at 6.6 per cent.

The proportion of migrants whose occupation at September 1990 was the same as before migration, varied across occupation groups as follows:

- 42 per cent for managers and administrators;
- 65 per cent for professionals;
- 45 per cent for para-professionals; and
- 62 per cent for tradespersons.

CIVILIAN LABOUR FORCE BY BIRTHPLACE, MAY 1991

	Employed		*Unemployed*				
	Full-time workers ('000)	*Total ('000)*	*Looking for full-time work ('000)*	*Total ('000)*	*Labour force ('000)*	*Unemployment rate (per cent)*	*Participation rate (per cent)*
Born in Australia	4,400.6	5,766.3	471.0	573.5	6,339.8	9.0	65.5
Born outside Australia	1,592.0	1,972.6	203.7	238.7	2,211.3	10.8	62.3
Oceania	173.4	205.8	21.7	26.7	232.5	11.5	77.1
New Zealand	144.0	171.1	14.6	18.2	189.4	9.6	79.3
Europe and the USSR	994.0	1,246.7	108.8	127.1	1,373.7	9.2	60.1
Germany	52.4	63.9	5.3	6.5	70.4	9.2	63.5
Greece	58.8	68.2	7.9	9.2	77.4	11.9	57.4
Italy	112.8	135.4	9.1	11.4	146.9	7.8	51.1
Netherlands	40.9	52.4	* 3.4	3.7	56.1	6.6	61.8
UK and Ireland	514.8	660.1	52.7	61.4	721.5	8.5	63.4
Yugoslavia	80.3	95.4	11.7	14.3	109.6	13.0	63.8
The Middle East and North Africa	65.7	75.6	15.9	17.2	92.9	18.6	55.4
Lebanon	28.3	31.7	7.8	8.5	40.2	21.1	55.8
South-East Asia	144.3	175.4	28.7	32.5	207.9	15.6	63.8
Malaysia	34.1	43.4	3.6	5.0	48.4	10.3	70.9
Philippines	32.0	38.4	4.7	5.0	43.4	11.5	67.3
Vietnam	39.9	45.8	12.5	13.2	59.0	22.4	60.8
North-east Asia	65.6	87.2	7.3	9.1	96.3	9.4	57.4
China	34.2	44.5	4.1	4.3	48.8	8.8	61.6
The Americas	53.7	65.6	7.0	9.6	75.2	12.8	69.1
Other(a)	95.3	116.3	14.2	16.6	132.8	12.5	70.1
India	36.1	42.6	5.9	6.5	49.1	13.2	74.2

(a) Includes Southern Asia and Africa (excluding North Africa).

Source: The Labour Force, Australia (6203.0).

EMPLOYMENT

Broadly, persons are considered to be employed if they are doing any work at all, regardless of the number of hours worked. In the statistics, employment is presented according to the demographic characteristics of employed persons, their occupation and industry, hours worked and whether they are full-time or part-time workers. Data for employed wage and salary earners by whether they work in the private or government sector, and estimates for apprentices and qualified tradespersons are also included in this section.

By relating employment levels to population levels, the magnitude of job growth in the economy can be evaluated. The measure relating these two levels is the employment/population ratio. Its usefulness lies in the fact that while movements in the employment level reflect net changes in the levels of persons holding jobs, movements in the ratio reflect net changes in the number of jobholders relative to changes in the size of the population. While a rise in employment may not appear as a rise in the ratio because of continuing population growth, a decrease in employment will always appear as a fall in the ratio.

EMPLOYED PERSONS: EMPLOYMENT/POPULATION RATIOS(a)
(per cent)

	Age group (years)								
Annual average(b)	*15–19*	*20–24*	*25–34*	*35–44*	*45–54*	*55–59*	*60–64*	*65+*	*Total*
MALES									
1985–86	49.3	80.1	88.6	90.7	85.8	73.0	41.7	8.8	70.3
1986–87	48.7	79.5	88.4	90.2	85.4	71.6	42.4	8.5	69.7
1987–88	49.2	79.8	88.9	90.4	84.9	70.4	43.5	9.1	69.8
1988–89	51.7	81.7	89.1	90.9	85.5	69.7	45.4	9.0	70.6
1989–90	53.0	82.0	89.8	90.9	86.6	71.3	46.2	9.1	71.2
1990–91	47.4	77.5	86.7	89.5	85.9	70.5	45.9	8.9	69.1
FEMALES									
1985–86	48.1	67.4	54.8	59.4	49.9	28.3	11.7	2.4	43.3
1986–87	47.5	68.2	56.6	61.3	52.3	29.5	12.9	2.4	44.5
1987–88	47.6	68.9	58.0	62.7	53.5	30.1	12.7	2.7	45.3
1988–89	49.2	70.3	59.3	65.3	55.7	31.1	14.6	2.3	46.8
1989–90	50.5	71.0	61.7	68.3	57.7	31.3	15.0	2.2	48.3
1990–91	46.2	69.6	60.8	67.6	59.3	34.2	15.7	2.5	47.9
PERSONS									
1985–86	48.7	73.8	71.7	75.3	68.3	51.0	26.4	5.1	56.6
1986–87	48.1	73.9	72.5	75.9	69.2	51.0	27.3	5.0	56.9
1987–88	48.4	74.4	73.4	76.7	69.6	50.6	27.9	5.4	57.4
1988–89	50.5	76.1	74.2	78.2	71.0	50.8	29.8	5.1	58.5
1989–90	51.8	76.6	75.8	79.6	72.5	51.6	30.5	5.1	59.6
1990–91	46.8	73.6	73.8	78.6	72.9	52.6	30.8	5.3	58.5

(a) Employment/population ratio for any group is the number of employed persons expressed as a percentage of the civilian population aged 15 and over in the same group. (b) Averages calculated on monthly estimates.

Source: The Labour Force, Australia (6203.0).

Employed persons — employers, self-employed persons and wage and salary earners — are those who, during the reference week, worked for one hour or more for pay, profit, commission or payment in kind in a job or a business, or on a farm.

EMPLOYED PERSONS: STATUS OF WORKER
('000)

Annual average(a)	*Employers*	*Self-employed*	*Wage and salary earners*	*Unpaid family helpers*	*Total*
1985–86	358.9	686.4	5,765.0	39.4	6,849.7
1986–87	335.5	724.5	5,895.1	64.6	7,019.7
1987–88	365.2	708.4	6,080.1	65.5	7,219.2
1988–89	367.4	734.4	6,371.9	66.5	7,540.3
1989–90	372.4	736.0	6,661.8	60.6	7,830.9
1990–91	368.4	763.2	6,589.6	67.1	7,788.3

(a) Averages calculated on quarterly estimates.

Source: The Labour Force, Australia (6203.0).

A measure of the relative importance of an industry is the size of its workforce and the work effort of that workforce as measured by hours worked. Taken together, employment and hours worked by industry serve as an indicator of labour input to that industry.

EMPLOYED PERSONS BY INDUSTRY AND AVERAGE WEEKLY HOURS WORKED ANNUAL AVERAGE(a), 1990–91

	Number ('000)			*Average weekly hours worked*		
Industry	*Males*	*Females*	*Persons*	*Males*	*Females*	*Persons*
Agriculture, forestry, fishing and hunting	306.0	127.8	433.8	48.8	29.6	43.2
Mining	86.1	9.9	96.0	42.1	36.0	41.5
Manufacturing	847.6	319.8	1,167.4	40.0	32.4	37.9
Food, beverages and tobacco	123.6	57.8	181.4	39.5	31.6	37.0
Metal products	171.5	30.7	202.2	40.2	31.4	38.9
Other manufacturing	552.5	231.2	783.8	40.1	32.7	37.9
Electricity, gas and water	92.5	11.6	104.2	36.0	32.4	35.6
Construction	496.2	75.1	571.3	39.3	21.0	36.9
Wholesale and retail trade	889.0	731.9	1,620.9	40.6	27.3	34.6
Transport and storage	319.7	80.0	399.6	41.0	30.4	38.9
Communication	102.5	39.4	141.9	35.3	30.3	33.9
Finance, property and business services	460.1	437.3	897.3	41.0	31.0	36.1
Public administration and defence	215.8	146.8	362.6	36.6	31.7	34.6
Community services	474.7	933.7	1,408.4	39.1	29.6	32.8
Recreation, personal and other services	257.1	327.7	584.9	38.5	27.5	32.3
Total	**4,547.3**	**3,241.0**	**7,788.3**	**40.3**	**29.3**	**35.7**

(a) Averages calculated on quarterly estimates.

Source: The Labour Force, Australia (6203.0).

EMPLOYED PERSONS BY OCCUPATION, ANNUAL AVERAGE(a), 1990–91 ('000)

Occupation(b)	*Males*	*Married females*	*All females*	*Persons*
Managers and administrators	648.1	171.3	214.1	862.2
Professionals	595.2	255.7	412.7	1,007.8
Para-professionals	252.4	127.4	209.1	461.6
Tradespersons	1,065.6	66.0	118.0	1,183.5
Clerks	305.0	658.7	1,035.2	1,340.3
Salespersons and personal service workers	418.6	361.4	741.3	1,159.9
Plant and machine operators, and drivers	481.6	63.7	91.1	572.7
Labourers and related workers	780.8	281.8	419.5	1,200.3
Total	**4,547.3**	**1,986.0**	**3,241.0**	**7,788.3**

(a) Averages calculated on quarterly estimates. (b) Classified according to the *Australian Standard Classification of Occupations* (ASCO), 1986.

Source: The Labour Force, Australia (6203.0).

Full-time workers are those who usually work 35 hours or more a week or who worked 35 hours or more during the reference week of the Labour Force Survey. Part-time workers are those who usually work less than 35 hours a week and who did so during the reference week.

EMPLOYED PERSONS: FULL-TIME AND PART-TIME WORKERS BY AGE ANNUAL AVERAGE(a), 1990–91
('000)

	Age group (years)								
	15–19	*20–24*	*25–34*	*35–44*	*45–54*	*55–59*	*60–64*	*65+*	*Total*
					MALES				
Full-time workers	212.6	477.7	1,159.0	1,127.3	775.7	238.4	142.1	44.8	4,177.5
Part-time workers	120.9	57.4	55.6	41.4	34.9	20.6	25.7	28.8	385.3
Total	**333.5**	**535.1**	**1,214.6**	**1,168.7**	**810.6**	**259.0**	**167.8**	**73.6**	**4,562.9**
					FEMALES				
Full-time workers	146.6	365.1	538.3	479.3	308.3	65.5	28.4	10.1	1,941.6
Part-time workers	165.2	104.3	310.8	396.2	223.7	57.0	29.1	18.2	1,304.4
Total	**311.8**	**469.4**	**849.1**	**875.5**	**532.0**	**122.4**	**57.5**	**28.2**	**3,245.9**

(a) Averages calculated on monthly estimates.
Source: The Labour Force, Australia (6203.0).

The composition and distribution of employed wage and salary earners are presented in the following two tables. The geographic distribution and private/public sector composition are of considerable interest, providing information to assist the continuing analysis of the relative size of employment in the private and government sectors in Australia. Changes over time in private and public sector employment by industry are also of considerable interest. The quarterly Survey of Employment and Earnings is the principal source of such information.

EMPLOYED WAGE AND SALARY EARNERS: BY SECTOR, JUNE 1991
('000)

Sector	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Aust.*
Private	1,473.1	1,145.0	628.0	361.3	359.9	94.9	42.9	54.6	4,159.8
Public	565.5	444.9	266.4	152.4	162.3	48.1	22.2	73.3	1,735.1
Commonwealth	133.5	102.7	49.0	30.8	25.3	9.1	4.2	53.7	408.3
State	372.0	296.1	188.4	112.9	125.7	35.2	16.6	19.6	1,166.5
Local	60.0	46.2	29.0	8.6	11.3	3.8	1.4	—	160.3
Total	**2,038.6**	**1,589.9**	**894.5**	**513.7**	**522.1**	**143.0**	**65.1**	**127.9**	**5,894.9**

Source: Employed Wage and Salary Earners, Australia (6248.0).

EMPLOYED WAGE AND SALARY EARNERS: INDUSTRY BY SECTOR
('000)

	Private sector				Public sector			
Industry	*Dec. 1987*	*Dec. 1988*	*Dec. 1989*	*Dec. 1990*	*Dec. 1987*	*Dec. 1988*	*Dec. 1989*	*Dec. 1990*
Agriculture, forestry, fishing and hunting(a)	. .	. .	. .	. .	8.0	7.8	7.5	7.7
Mining	78.2	78.2	77.3	79.6	7.1	6.8	6.5	6.0
Manufacturing	1,022.2	1,027.3	1,061.3	976.0	45.3	43.1	34.1	31.2
Electricity, gas and water	5.6	4.1	2.7	1.7	123.7	120.4	114.7	111.3
Construction	225.6	252.4	277.0	243.4	43.2	40.8	44.1	43.4
Wholesale and retail trade	1,195.4	1,294.4	1,314.3	1,277.5	5.0	4.4	4.6	4.2
Transport and storage	152.1	165.9	181.1	181.0	145.2	139.3	136.8	131.1
Communication	0.7	0.6	1.6	0.9	134.0	127.5	128.4	127.9
Finance, property and business services	604.4	652.7	711.1	669.8	106.0	103.4	114.6	115.5
Public administration and defence(b)	—	—	—	—	317.3	317.0	307.0	314.3
Community services	456.5	460.7	500.1	512.0	771.5	788.1	792.5	813.0
Health	229.8	223.3	236.8	238.0	285.6	286.5	290.5	293.3
Education	96.0	103.4	108.0	115.1	365.2	381.0	373.4	384.1
Other	130.7	134.1	155.3	159.0	120.6	120.6	128.6	135.6
Recreation, personal and other services	420.3	432.8	465.5	446.7	24.3	25.7	24.6	24.3
Total all industries	**4,161.0**	**4,369.2**	**4,591.9**	**4,388.7**	**1,730.5**	**1,724.3**	**1,715.2**	**1,729.9**

(a) Out of scope of survey for private sector. (b) Excludes members of permanent defence forces and employees of overseas embassies, consulates etc.

Source: Employed Wage and Salary Earners, Australia (6248.0).

The following table shows the number of apprentices distributed between industries and the public and private sectors.

APPRENTICES: INDUSTRY AND SECTOR, MAY 1991
('000)

	Year of apprenticeship				
	First	*Second*	*Third*	*Fourth(a)*	*Total*
Industry					
Manufacturing	5.5	9.8	9.1	5.6	30.0
Construction	3.7	8.8	11.7	6.7	30.9
Wholesale and retail trade	5.8	13.3	8.8	10.3	38.3
Recreation, personal and other services	5.7	5.5	5.4	*3.1	19.7
Other(b)	3.5	7.2	6.0	3.7	20.3
Sector					
Public	*2.8	5.2	5.3	3.5	16.7
Private(c)	21.5	39.4	35.7	25.8	122.4
Total	**24.2**	**44.6**	**41.0**	**29.4**	**139.1**

(a) Includes a small number of fifth year apprentices. (b) Comprises Agriculture, forestry, fishing and hunting; Mining; Electricity, gas and water; Transport and storage; Communication; Community services; Finance, property and business services; and Public administration and defence. (c) Includes a small number of persons for whom sector could not be determined.

Source: Transition from Education to Work, Australia (6227.0).

UNEMPLOYMENT

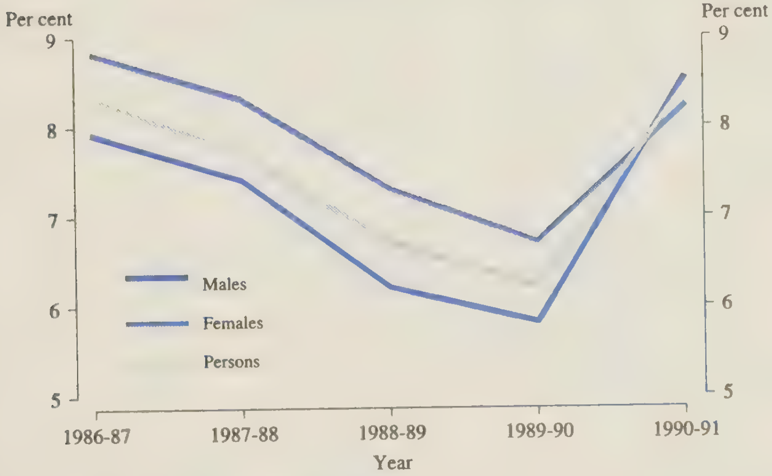
Broadly, persons are considered to be unemployed if they satisfy three criteria — not employed, available for work, and taking active steps to find work.

Measures of unemployment provide one indicator of the under-utilisation of labour. The two most important measures are the number of persons unemployed and the unemployment rate. The unemployment rate is defined as the number of unemployed expressed as a percentage of the size of the labour force.

The trend unemployment rate for males increased each month since December 1989 and in December 1991 stood at 10.8 per cent, the highest level recorded since the monthly Labour Force Survey began in February 1978. For females, the trend unemployment rate in August 1991 was 9.9 per cent, still well below the highest level of 10.6 per cent recorded in mid-1983.

By examining particular groups and characteristics of the unemployed, various economic and social aspects of unemployment can be analysed. While the aggregate unemployment rates shown above are important overall indicators, full-time and part-time unemployment levels and rates for different age groups by sex and marital status, shown in the following table, provide additional perspectives.

UNEMPLOYMENT RATE, ANNUAL AVERAGE



Source: The Labour Force, Australia (6203.0).

UNEMPLOYED PERSONS: AGE AND WHETHER LOOKING FOR FULL-TIME OR PART-TIME WORK, ANNUAL AVERAGE(a), 1990–91

	Number unemployed ('000)				*Unemployment rate (per cent)*			
Age	*Males*	*Married females*	*All females*	*Persons*	*Males*	*Married females*	*All females*	*Persons*
				LOOKING FOR FULL-TIME WORK				
Aged 15–19	59.1	3.5	47.8	106.9	12.6	25.7	11.1	11.9
Looking for first job	23.1	*0.5	22.9	46.0	. .	. .	. .	. .
Attending school	3.8	*0.0	*2.6	6.4	n.a.	n.a.	n.a.	n.a.
Attending a tertiary educational institution full time	*2.3	*0.0	*1.8	4.1	n.a.	n.a.	n.a.	n.a.
Aged 20+	317.8	68.3	154.3	472.1	6.9	*3.3	4.9	7.6
20–24	77.8	10.7	48.1	125.9	12.2	7.4	8.9	10.7
Looking for first job	7.4	*1.3	7.9	15.2	. .	. .	. .	. .
25–34	105.9	25.8	49.2	155.0	8.0	4.3	5.3	6.9
35–44	63.7	19.1	33.4	97.1	5.2	*2.6	3.6	4.5
45–54	37.0	10.5	19.5	56.6	4.3	*2.4	3.5	4.0
55+	33.4	*2.3	4.0	37.5	6.2	*1.5	*1.9	4.9
Aged 15–64	376.0	71.7	201.9	577.8	7.6	*3.2	5.7	6.8
Total	**377.0**	**71.8**	**202.0**	**579.0**	**7.6**	***3.4**	**5.6**	**6.7**
				LOOKING FOR PART-TIME WORK				
Aged 15–19	25.7	*0.8	28.8	54.5	5.5	5.6	6.7	6.1
Attending school	17.5	*0.0	17.4	34.9	20.1	*0.0	16.7	18.2
Attending a tertiary educational institution full time	5.7	*0.0	7.9	13.6	18.0	25.0	16.3	17.0
Aged 20+	18.3	42.7	61.7	80.0	*0.4	*2.0	*2.0	*1.0
20–24	7.1	*3.3	11.0	18.0	*1.1	*2.3	*2.0	*1.5
Attending a tertiary educational institution full time	4.9	*0.2	4.9	9.8	15.9	18.3	12.3	13.8
25–34	4.2	16.0	21.5	25.7	*0.3	*2.6	*2.3	*1.1
35–44	*2.2	14.4	17.9	20.1	*0.2	*1.9	*1.9	*0.9
45+	4.9	9.0	11.3	16.2	*0.4	*1.5	*1.5	*0.7
Aged 15–64	43.3	43.3	90.3	133.7	*0.9	*2.1	*2.5	*1.6
Total	**44.0**	**43.5**	**90.5**	**134.6**	***0.9**	***2.1**	***2.5**	***1.6**

(a) Averages calculated on monthly estimates.
Source: The Labour Force, Australia (6203.0).

Job search experience

An estimated 86 per cent of unemployed persons looking for full-time work in July 1990 were registered with the CES compared with 38 per cent of those looking for part-time work.

In total, 76 per cent of unemployed persons were registered with the CES. Over the period July 1980 to July 1990 this estimate ranged between 73 per cent and 82 per cent.

Approximately 23 per cent of the total unemployed at July 1990 had been unemployed for over one year. For this group the most frequently reported main difficulties in finding work were 'considered too young or too old by employers', 'lacked the necessary skills/education' and the belief that there were 'no vacancies at all'.

UNEMPLOYED PERSONS: ACTIVE STEPS TAKEN TO FIND WORK AND WHETHER LOOKING FOR FULL-TIME OR PART-TIME WORK, JULY 1990
('000)

	Looking for full-time work			*Looking for part-time work*			*Total*		
Active steps taken to find work	*Males*	*Females*	*Persons*	*Males*	*Females*	*Persons*	*Males*	*Females*	*Persons*
Registered with the CES and									
Took no other active steps	*3.0	*3.0	6.0	*1.0	*1.0	*2.0	4.0	4.0	8.0
Contacted prospective employers	231.8	120.6	352.3	8.7	21.0	29.7	240.4	141.6	382.0
Took other active steps	13.8	7.8	21.5	*1.9	*2.2	4.0	15.6	10.0	25.6
Total	*248.5*	*131.4*	*379.9*	*11.5*	*24.2*	*35.7*	*260.1*	*155.6*	*415.6*
Not registered with the CES and									
Contacted prospective employers	35.9	31.7	67.7	17.2	36.9	54.1	53.1	68.6	121.8
Took other active steps	*3.4	*3.0	6.4	*1.7	*2.9	4.6	5.0	5.9	10.9
Total	*39.3*	*34.7*	*74.0*	*18.8*	*39.8*	*58.7*	*58.2*	*74.5*	*132.7*
Total	**287.8**	**166.1**	**453.9**	**30.4**	**64.0**	**94.4**	**318.2**	**230.1**	**548.3**

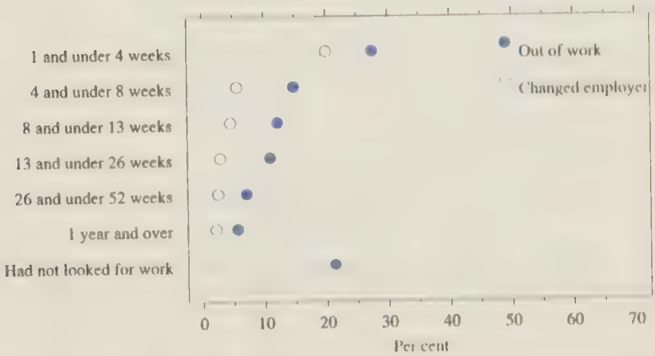
Source: Job Search Experience of Unemployed Persons, Australia (6222.0).

In the twelve months to July 1990, 1,880,300 persons had started a job for wages or salary (lasting two weeks or more). Of those persons, 811,300 had changed employer to start the job.

Of the persons who started a job for wages or salary, 35 per cent obtained their job by approaching the employer without prior knowledge that the job was available, while 40 per cent approached the employer knowing that the job was available. The remaining 25 per cent of jobs had been obtained as a result of the employer approaching the jobseeker.

Younger persons were more inclined to approach an employer for a job than older persons. An estimated 77 per cent of those aged 15 to 34 years approached an employer for a job compared with 68 per cent of persons aged 35 years and over.

PERSONS WHO STARTED A WAGE OR SALARY JOB IN THE PREVIOUS TWELVE MONTHS LENGTH OF TIME LOOKING FOR WORK BEFORE BEING OFFERED JOB AND WHETHER OUT OF WORK PRIOR TO STARTING JOB, JULY 1990



Source: Successful and Unsuccessful Job Search Experience, Australia (6245.0).

PERSONS WHO STARTED A JOB FOR WAGES OR SALARY DURING THE PREVIOUS TWELVE MONTHS: AGE, WHETHER OUT OF WORK PRIOR TO STARTING JOB AND WHETHER JOB STARTED WAS IN PREFERRED OCCUPATION, JULY 1990
('000)

	Out of work prior to starting job		*Changed employer to start job*		*Total*		
Age group	*Job was in preferred occupation*	*Job was not in preferred occupation*	*Job was in preferred occupation*	*Job was not in preferred occupation*	*Job was in preferred occupation*	*Job was not in preferred occupation*	*Total(a)*
15–19	164.3	57.3	113.4	22.7	277.6	80.0	447.9
20–24	139.8	45.0	135.2	17.5	275.0	62.4	383.3
25–34	188.8	54.3	209.5	22.3	398.3	76.6	535.3
35–44	112.4	36.9	131.9	14.4	244.3	51.3	332.2
45–54	48.6	15.4	47.8	7.6	96.3	23.0	137.6
55 and over	17.5	3.8	15.8	*0.0	33.3	3.8	44.0
Total	671.4	212.6	653.5	84.5	1,324.9	297.1	1,880.3

(a) Includes persons who did not have a preferred occupation.
Source: Successful and Unsuccessful Job Search Experience, Australia (6245.0).

JOB VACANCIES

Job vacancy statistics taken together with unemployment statistics assist in the assessment of the demand for labour.

A job vacancy is a job available for immediate filling and for which recruitment action had been taken by the employer.

JOB VACANCIES
('000)

Month	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Aust.*
May 1986	21.1	16.8	4.6	2.6	4.1	1.3	1.1	2.7	54.4
May 1987	19.9	17.6	4.0	3.5	5.5	1.0	0.7	1.6	53.8
May 1988	22.0	18.6	6.6	3.1	4.8	0.7	0.7	1.9	58.5
May 1989	26.3	24.1	10.4	3.5	4.5	0.9	1.1	2.3	73.1
May 1990	19.9	13.1	7.1	*3.4	2.7	1.0	0.7	2.3	50.1
May 1991	10.5	3.8	4.4	1.5	2.1	0.7	0.3	1.8	25.1

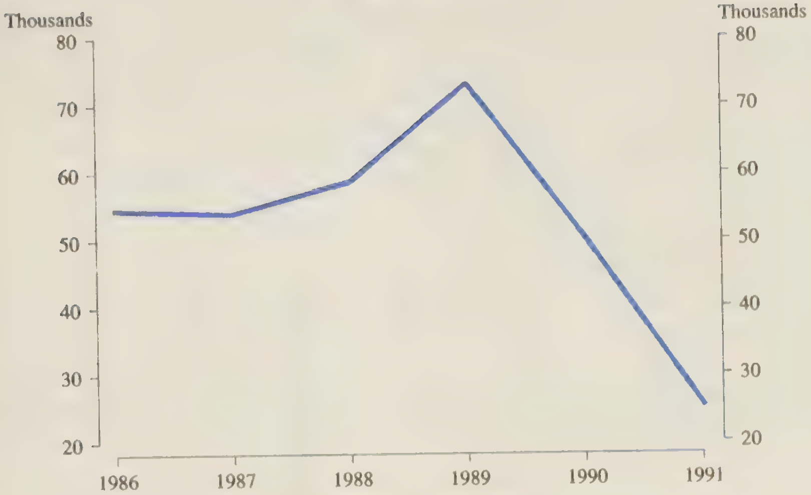
Source: Job Vacancies and Overtime, Australia (6354.0).

JOB VACANCY RATES(a)
(per cent)

Month	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Aust.*
May 1986	1.1	1.1	0.6	0.5	0.9	0.9	2.0	2.0	1.0
May 1987	1.1	1.2	0.5	0.7	1.1	0.7	1.5	1.3	1.0
May 1988	1.0	1.2	0.8	0.7	0.9	0.5	1.3	1.4	1.0
May 1989	1.2	1.5	1.2	0.7	0.9	0.6	1.9	1.7	1.2
May 1990	1.0	0.8	0.8	*0.7	0.6	0.7	1.3	1.9	0.9
May 1991	0.5	0.2	0.5	0.3	0.4	0.4	0.5	1.4	0.4

(a) Job vacancy rate is calculated by expressing the number of job vacancies as a percentage of the number of employees plus vacancies.
Source: Job Vacancies and Overtime, Australia (6354.0).

JOB VACANCIES
May 1986 to May 1991



Source: Job Vacancies and Overtime, Australia (6354.0).

PERSONS NOT IN THE LABOUR FORCE

Persons not in the labour force represent that group of the population who, during a particular week, are neither employed nor unemployed. Interest in this group centres primarily around their potential to participate in the labour force and their reasons for their current labour force status.

Of the 3.6 million persons aged 15 to 69 years not in the labour force at September 1991, 22 per cent reported marginal attachment to the labour force and therefore were potential participants. An estimated 73 per cent of these potential labour force participants were female.

Marginal attachment to the labour force includes 'discouraged jobseekers'. These are persons who wanted to work and were available to start work but were not looking for work because they believed they would not be able to find a job. This was either because they believed that jobs were not available, or that they would not be acceptable to employers because of their age, their lack of skills/education, or difficulties with language or ethnic background.

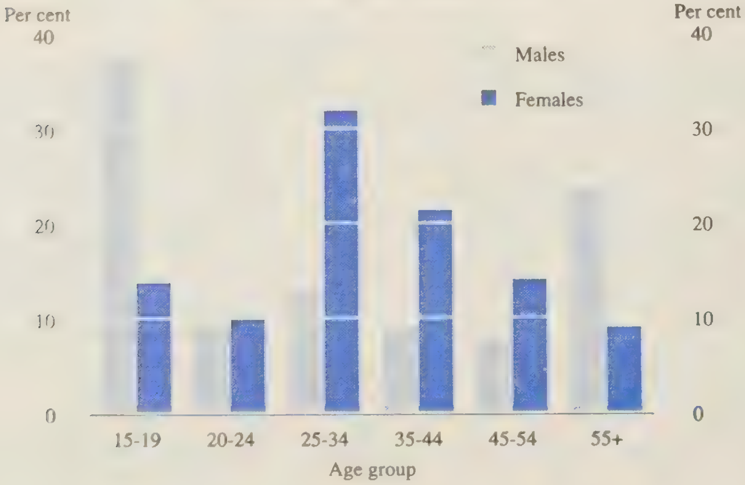
In September 1991 there were 138,200 discouraged jobseekers — 37 per cent more than the estimate for September 1990.

CIVILIAN POPULATION AGED 15 TO 69: LABOUR FORCE STATUS
('000)

	March 1987	*March 1988*	*September 1988*	*September 1989*	*September 1990*	*September 1991*
Persons in the labour force	7,771.2	7,966.8	7,993.2	8,316.3	8,514.2	8,591.5
Persons not in the labour force	3,496.7	3,520.2	3,620.4	3,567.1	3,550.1	3,643.9
With marginal attachment to the labour force	696.4	725.0	721.7	708.4	752.5	819.3
Wanted to work and were actively looking for work	31.1	33.6	65.7	55.3	57.6	46.7
Were available to start work within four weeks	23.6	26.9	34.8	27.7	31.5	24.1
Were not available to start work within four weeks	7.6	6.7	30.9	27.6	26.1	22.5
Wanted to work but were not actively looking for work and were available to start work within four weeks	665.3	691.4	656.0	653.1	694.9	772.7
Discouraged jobseekers	94.4	92.0	83.8	76.1	100.9	138.2
Other	570.9	599.4	572.2	577.0	594.1	634.5
Without marginal attachment to the labour force	2,800.3	2,795.2	2,898.8	2,858.7	2,797.6	2,824.6
Civilian population aged 15 to 69	**11,267.9**	**11,487.0**	**11,613.6**	**11,883.4**	**12,064.3**	**12,235.4**

Source: Persons Not in the Labour Force, Australia (6220.0).

PERSONS NOT IN THE LABOUR FORCE WITH MARGINAL ATTACHMENT TO THE LABOUR FORCE AGE AND SEX, SEPTEMBER 1990



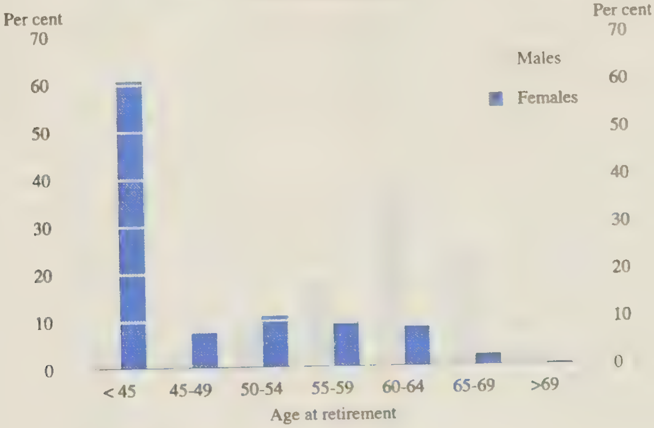
Source: Persons Not in the Labour Force, Australia (6220.0).

RETIREMENT AND RETIREMENT INTENTIONS

In November 1989 the civilian population included 4,863,400 persons aged 45 and over. Of these, 2,641,900 (54%) had retired from full-time work, 1,584,500 (33%) intended to retire from full-time work, 461,700 (9%) had never worked full time and did not intend to work full time and a further 175,300 (4%) intended never to retire from full-time work.

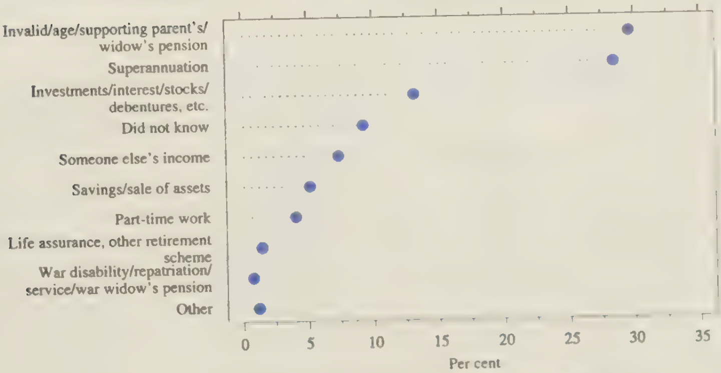
Of the 2,641,900 persons who had retired from full-time work, 1,040,000 (39%) were males and 1,602,000 (61%) were females.

PERSONS AGED 45 AND OVER WHO HAD RETIRED FROM FULL-TIME WORK: AGE AT RETIREMENT BY SEX
NOVEMBER 1989



Source: Retirement and Retirement Intentions, Australia (6238.0).

PERSONS AGED 45 AND OVER WHO INTENDED TO RETIRE FROM FULL-TIME WORK: EXPECTED MAIN SOURCE OF INCOME AT RETIREMENT, NOVEMBER 1989



Source: Retirement and Retirement Intentions, Australia (6238.0).

PERSONS AGED 45 AND OVER(a): RETIREMENT STATUS, NOVEMBER 1989
('000)

	Had retired	*Intended to retire*	*Did not intend to retire*	*Never had a full-time job and did not intend to work full time*	*Total*
Age at November 1989					
45-49	236.6	614.6	46.3	36.8	934.4
50-54	252.5	462.0	42.3	44.8	801.5
55-59	320.5	309.9	30.1	46.9	707.5
60-64	467.5	169.4	30.7	67.2	734.8
65-69	535.8	21.6	13.7	70.3	641.4
70 and over	829.0	6.9	12.1	195.7	1,043.8
Marital status					
Married	1,877.0	1,296.9	136.1	259.7	3,569.8
Not-married	764.9	287.5	39.1	202.1	1,293.6
Family status					
Member of a family	2,040.0	1,352.5	143.9	331.0	3,867.3
Husband or wife	1,827.4	1,247.8	130.3	252.2	3,457.8
Other family head	128.1	72.3	9.6	39.7	249.6
Other	84.5	32.4	4.0	39.1	160.0
Not a member of a family	518.8	165.0	23.4	113.9	821.1
Family status not determined	83.1	67.0	8.0	16.8	174.9
Birthplace and period of arrival					
Born in Australia	1,876.1	1,015.5	126.0	298.6	3,316.2
Born outside Australia	765.8	568.9	49.3	163.1	1,547.2
Arrived before 1961	455.2	220.1	20.2	76.1	771.5
Arrived 1961–1970	187.9	190.5	16.0	38.0	432.4
Arrived 1971–1980	73.4	95.1	6.4	24.1	199.0
Arrived 1981–1989	49.4	63.3	6.7	25.0	144.3
Area					
Metropolitan	1,639.4	1,027.6	79.9	251.6	2,998.5
Non-metropolitan	1,002.5	556.8	95.4	210.2	1,864.9
Total	**2,641.9**	**1,584.5**	**175.3**	**461.7**	**4,863.4**
Males	**1,040.0**	**1,155.7**	**134.9**	**16.8**	**2,347.4**
Females	**1,602.0**	**428.8**	**40.3**	**444.9**	**2,516.0**

(a) Excludes persons who were institutionalised or permanently unable to work who were not in the scope of the survey.
Source: Retirement and Retirement Intentions, Australia (6238.0).

WAGE RATES, EARNINGS AND INCOME

Industrial conciliation and arbitration

Legal rates of pay for some 80 per cent of Australian wage and salary earners, as at May 1990, are prescribed in awards and determinations of Commonwealth and State industrial tribunals or in collective agreements registered with them. Some of the major decisions handed down by the Australian Industrial Relations Commission and its predecessor, the Australian Conciliation and Arbitration Commission have been:

- In June 1983, the Commission met to consider the formulation of new wage fixing principles in relation to the determination of national wage adjustments based on movements in the consumer price index (CPI).
- On 23 September 1983, the Commission announced that it would try once again to operate a centralised system based on prima facie full indexation. Under this new system, the Commission was to adjust its award wages and salaries every six months in relation to the last two quarterly movements of the CPI unless it was persuaded to the contrary.
- In February–March 1984, the Commission recommended a 4.1 per cent increase based

on CPI movements for the September and December 1983 quarters.

- In February–March 1985, a recommendation of a 2.6 per cent increase based on CPI movements for the September and December 1984 quarters was made.
- In October 1985, the Commission awarded an increase of 3.8 per cent to operate from the beginning of the first pay period to commence on or after 4 November 1985.
- In July 1986, the Commission awarded a 2.3 per cent increase, effective from 1 July 1986 in all States, except Queensland where it was effective from 7 July 1986.
- In March 1987, a two tier wage fixing system superseded the CPI-based indexation. The first tier was a flat increase of $10 per week payable to all employees. The second tier was a percentage increase of up to four per cent, a maximum rate set by the Commission, negotiable between employees and employers.
- In February 1988, the Commission awarded a flat $6 which was effective from 5 February 1988. In September 1988, the Commission again handed down a decision which allowed for a pay increase which was to be paid in two parts. The first part was an increase of three per cent which was payable from 1 September 1988 and the second was an increase of $10 which was not to be available less than six months after the first increase. Both increases were based on the Structural Efficiency principles as laid down by the Commission.
- In August 1989, the Commission handed down a decision allowing for a pay increase to be paid in two parts. The first part allowed for an increase of $15 (or three per cent whichever was the greater) for skilled workers, $12.50 for semi-skilled workers and $10 for unskilled workers. The second part was an increase of the same amount which was not to be available less than six months after the first increase. Both increases were based on the Structural Efficiency principles as laid down by the Commission.
- In April 1991, a 2.5 per cent increase was awarded to all States, subject to application to and ratification by the Commission.

Award rates of pay indexes

The award rates of pay indexes are based on a representative sample of award designations, designed to measure trends in rates payable under awards. The indexes are based on the industry and occupation structures existing in May 1985. Estimates of minimum award rates of pay for each component of the series are expressed as index numbers based on June 1985 = 100.0.

WEEKLY AWARD RATES OF PAY INDEXES FULL-TIME ADULT EMPLOYEES, BY INDUSTRY, DECEMBER

(Base: June 1985 = 100.0)
(index numbers)

	Males				*Females*			
Industry	*1988*	*1989*	*1990*	*1991*	*1988*	*1989*	*1990*	*1991*
Mining	121.8	128.0	129.9	134.4	121.3	126.8	. .	. .
Manufacturing	119.2	127.4	133.9	138.8	120.9	130.3	138.0	142.5
Food, beverages, tobacco	117.7	125.6	131.6	135.2	118.5	126.8	133.2	136.4
Textiles; Clothing, and footwear	122.5	135.2	142.6	149.5	124.1	135.4	143.5	149.0
Metal products, machinery and equipment	118.8	127.0	133.1	138.6	119.9	129.3	137.1	141.5
Basic metal products	117.5	125.4	129.9	136.8	117.4	126.1	. .	. .
Fabricated metal products; Other machinery and equipment	119.5	128.2	135.2	141.6	120.1	129.1		
Transport equipment	118.9	126.7	132.5	135.9	120.0	130.4		
Other manufacturing(a)	121.4	130.3	138.2	142.9	121.6	130.8	140.0	141.8
Construction	118.6	125.8	131.2	135.2	118.8	125.6	. .	. .
Wholesale and retail trade	118.6	127.1	134.7	140.4	118.7	127.9	134.7	139.3
Wholesale trade	119.6	127.6	134.2	139.0	119.4	127.6	135.0	138.7
Retail trade	117.6	126.6	135.1	141.6	118.4	128.1	134.6	139.6
Finance, property and business services	116.7	124.1	128.6	131.8	117.6	124.5	130.5	133.6
Community services	117.8	123.5	127.8	135.4	121.0	127.1	132.5	139.4
Total all industries(b)	**118.5**	**125.6**	**131.0**	**135.9**	**119.9**	**127.3**	**133.3**	**138.3**

(a) Includes wood, wood products and furniture, non-metallic mineral products; and miscellaneous manufacturing (b) Excludes employees in the defence forces; agriculture; services to agriculture; and employees in private households employing staff

Source: Award Rates of Pay Indexes, Australia (6312.0).

Award Coverage

The award coverage of employees in occupation groups and industries is shown in the following two tables. The tables show that females (83.5%) had a higher level of coverage by awards than males (77.3%), and that more males were covered by Federal awards than State awards, while for females coverage was mainly by State awards.

Overall coverage was 80.0 per cent in May 1990, a decrease from May 1985 when coverage was 85.0 per cent.

ALL EMPLOYEES: AWARD COVERAGE RATES BY OCCUPATION AND JURISDICTION MAY 1990 (per cent)

	Males				*Females*			
	Covered by awards, determinations and collective agreements			*Not covered by awards, etc.*	*Covered by awards, determinations and collective agreements*			*Not covered by awards, etc.*
Occupation group	*Federal*	*State*	*Total(a)*		*Federal*	*State*	*Total*	
Managers and administrators	18.0	14.3	35.0	65.0	13.6	32.4	49.0	51.0
Professionals	25.7	39.5	67.2	32.8	16.6	64.2	82.1	17.9
Para-professionals	35.8	45.7	82.9	17.1	18.3	72.7	91.4	8.6
Tradespersons	48.0	37.3	86.9	13.1	24.9	60.2	86.2	13.8
Clerks	48.1	31.2	81.5	18.5	25.6	49.5	78.1	21.9
Salespersons and personal service workers	22.3	40.5	66.5	33.5	18.3	68.3	88.2	11.8
Plant and machine operators, and drivers	53.3	37.0	92.2	7.8	62.0	29.1	91.9	8.1
Labourers and related workers	38.8	49.1	89.2	10.8	27.5	64.1	92.8	7.2
All occupations	**38.0**	**37.3**	**77.3**	**22.7**	**23.2**	**58.4**	**83.5**	**16.5**

(a) Includes small numbers of employees covered by unregistered collective agreements.

Source: Award Coverage, Australia (6315.0).

ALL EMPLOYEES: AWARD COVERAGE RATES BY INDUSTRY AND JURISDICTION MAY 1990 (per cent)

	Males				*Females*			
	Covered by awards, determinations and collective agreements			*Not covered by awards, etc.*	*Covered by awards, determinations and collective agreements*			*Not covered by awards, etc.*
Industry	*Federal*	*State*	*Total(a)*		*Federal*	*State*	*Total(a)*	
Mining	44.9	30.3	76.6	23.4	*13.4	36.9	51.8	48.2
Manufacturing	47.8	29.2	79.5	20.5	36.2	42.9	82.1	17.9
Food, beverages and tobacco	25.7	55.2	83.9	16.1	18.9	64.7	85.6	14.4
Textiles; Clothing and footwear	43.3	32.3	78.5	21.5	55.6	32.3	88.3	11.7
Paper, paper products, printing and publishing	51.9	26.7	81.3	18.7	33.0	43.4	80.5	19.5
Chemical, petroleum and coal products	27.7	24.1	55.3	44.7	14.1	42.7	59.5	40.5
Metal products, machinery and equipment	59.3	19.3	80.9	19.1	40.6	37.4	82.1	17.9
Basic metal products	39.4	37.0	80.5	19.5	33.6	39.6	76.4	23.6
Fabricated metal products; Other machinery and equipment	59.6	14.9	76.8	23.2	33.7	41.7	80.3	19.7
Transport equipment	73.9	15.4	90.1	9.9	66.6	22.7	90.6	9.4
Other manufacturing	42.9	35.3	80.4	19.6	34.7	42.6	82.7	17.3
Electricity, gas and water	46.9	51.0	98.4	*1.6	49.0	50.0	99.5	*0.5
Construction	30.7	43.6	76.3	23.7	6.6	29.5	45.5	54.5
Wholesale trade	22.2	27.1	53.2	46.8	12.7	47.9	63.7	36.3
Retail trade	30.4	40.6	73.3	26.7	10.2	71.2	84.2	15.8
Transport and storage	59.2	25.1	85.5	14.5	49.1	22.7	73.8	26.2
Communication	99.6	*0.0	99.7	*0.3	97.3	*0.7	98.6	*1.4

For footnotes *see* end of table.

ALL EMPLOYEES: AWARD COVERAGE RATES BY INDUSTRY AND JURISDICTION MAY 1990 — *continued*

(per cent)

	Males				Females			
	Covered by awards, determinations and collective agreements			*Not covered by awards, etc.*	*Covered by awards, determinations and collective agreements*			*Not covered by awards, etc.*
Industry	*Federal*	*State*	*Total(a)*		*Federal*	*State*	*Total(a)*	
Finance, property and business services	33.3	23.1	59.2	40.8	33.9	39.4	75.5	24.5
Public administration and defence	56.1	42.2	98.3	1.7	60.1	36.7	97.4	2.6
Community services	16.3	69.7	86.7	13.3	10.6	79.9	91.1	8.9
Recreation, personal and other services	22.2	40.8	66.3	33.7	24.3	56.7	82.5	17.5
All industries	**38.0**	**37.3**	**77.3**	**22.7**	**23.2**	**58.4**	**83.5**	**16.5**

(a) Includes small numbers of employees covered by unregistered collective agreements.

Source: Award Coverage, Australia (6315.0).

Average weekly earnings

Average weekly earnings statistics are presented below. Weekly total earnings include award, over-award and overtime pay while weekly ordinary time earnings relate only to that part of total earnings attributable to award, standard or agreed hours of work.

AVERAGE WEEKLY EARNINGS OF EMPLOYEES

($)

	Males			Females			Persons		
	Full-time adults		*All males*	*Full-time adults*		*All females*	*Full-time adults*		*All employees*
Reference period - pay period ending on or before	*Average weekly ordinary time earnings*	*Average weekly total earnings*	*Average weekly total earnings*	*Average weekly ordinary time earnings*	*Average weekly total earnings*	*Average weekly total earnings*	*Average weekly ordinary time earnings*	*Average weekly total earnings*	*Average weekly total earnings*
1986 — 21 February	427.20	460.10	422.70	352.80	360.60	276.40	404.20	429.50	364.10
1987 — 20 February	454.40	487.70	444.50	375.70	384.10	291.00	429.60	455.10	381.30
1988 — 19 February	485.70	522.40	474.90	402.20	412.20	315.30	458.80	486.90	408.80
1989 — 17 February	521.90	563.70	511.60	431.30	443.30	334.80	492.30	524.30	436.30
1990 — 16 February	555.80	600.20	546.30	462.40	475.10	358.30	524.70	558.60	464.80
1991 — 15 February	597.70	642.50	585.60	499.80	511.90	385.70	564.20	597.80	496.90

Source: Average Weekly Earnings, States and Australia (6302.0).

Distribution and composition of earnings

Statistics on the distribution of employees according to weekly earnings and hours, and the composition of weekly earnings and hours for various categories of employees can assist in understanding movements in average weekly earnings.

The following two tables illustrate the various components of Average Weekly Total Earnings and Hours and their varying contribution to the total for different categories of employees.

COMPOSITION OF AVERAGE WEEKLY TOTAL EARNINGS FULL-TIME NON-MANAGERIAL EMPLOYEES, BY SECTOR, MAY 1991

($)

	Average weekly ordinary time earnings					
	Award or agreed base rate of pay	*Payment by measured result*	*Over award pay*	*Total ordinary time*	*Overtime*	*Average weekly total earnings*
			PRIVATE SECTOR			
Males						
Adult	495.30	11.60	15.80	522.60	65.70	588.30
Junior	269.90	*1.60	4.60	276.10	17.30	293.40
Total	478.20	10.80	14.90	504.00	62.10	566.00
Females						
Adult	440.20	3.10	10.40	453.70	12.60	466.30
Junior	264.20	*0.80	3.40	268.40	6.60	275.00
Total	420.00	2.80	9.60	432.40	11.90	444.30
Persons						
Adult	476.10	8.60	13.90	498.60	47.20	545.70
Junior	267.30	1.20	4.10	272.60	12.30	284.90
Total	457.30	8.00	13.00	478.20	44.00	522.30
			PUBLIC SECTOR			
Males						
Adult	569.90	1.20	2.10	573.20	35.70	608.80
Junior	303.10	*0.10	*0.50	303.70	8.40	312.10
Total	563.50	1.20	2.00	566.70	35.00	601.70
Females						
Adult	539.20	0.10	0.80	540.00	9.30	549.30
Junior	309.80	*0.00	*0.30	310.00	*3.30	313.30
Total	530.60	0.10	0.70	531.40	9.00	540.50
Persons						
Adult	558.10	0.80	1.60	560.50	25.50	586.00
Junior	306.40	*0.00	*0.40	306.90	5.90	312.70
Total	550.80	0.80	1.50	553.10	25.00	578.10
			TOTAL			
Males						
Adult	521.70	7.90	10.90	540.50	55.10	595.60
Junior	274.50	*1.40	4.10	280.00	16.00	296.00
Total	507.30	7.50	10.50	525.40	52.80	578.20
Females						
Adult	478.60	1.90	6.70	487.20	11.30	498.50
Junior	271.50	*0.70	2.90	275.00	6.00	281.10
Total	460.70	1.80	6.30	468.80	10.80	479.70
Persons						
Adult	506.10	5.80	9.40	521.20	39.30	560.50
Junior	273.10	1.10	3.50	277.70	11.40	289.00
Total	490.10	5.40	9.00	504.50	37.30	541.90

Source: Distribution and Composition of Employee Earnings and Hours, Australia (6306.0).

AVERAGE WEEKLY ORDINARY TIME AND TOTAL EARNINGS, AND HOURS PAID: FOR FULL-TIME ADULT EMPLOYEES BY OCCUPATION, MAY 1991

	Average weekly ordinary time		*Average weekly total*	
Occupation	*Earnings ($)*	*Hours*	*Earnings ($)*	*Hours*
	MALES			
Managers and administrators	845.60	35.5	853.50	35.8
Professionals	776.30	36.6	791.90	37.1
Para-professionals	639.50	37.6	686.10	39.4
Tradespersons	507.40	37.6	584.10	41.0
Clerks	538.70	37.4	559.10	38.4
Salespersons and personal service workers	550.50	38.1	565.60	38.9
Plant and machine operators, and drivers	504.40	38.0	599.80	42.7
Labourers and related workers	443.00	37.7	494.50	40.4
All occupations	**595.20**	**37.3**	**640.50**	**39.4**
	FEMALES			
Managers and administrators	654.40	35.1	657.70	35.2
Professionals	640.90	36.9	648.40	37.2
Para-professionals	602.40	37.9	618.10	38.7
Tradespersons	409.10	38.0	423.00	38.7
Clerks	459.80	37.2	468.20	37.7
Salespersons and personal service workers	439.50	38.2	447.40	38.6
Plant and machine operators, and drivers	375.90	37.3	396.70	38.4
Labourers and related workers	389.80	37.7	411.00	39.0
All occupations	**500.70**	**37.3**	**511.00**	**37.8**

Source: Distribution and Composition of Employee Earnings and Hours, Australia (6306.0).

Non-wage benefits

In addition to wages and salaries, a large majority of employees receive one or more non-wage benefits, such as leave, holiday costs, low-interest finance, goods and services, housing, electricity, telephone, transport, medical, union dues, club fees, entertainment allowance, shares, study leave, superannuation or children's education expenses.

The proportion of employees aged 15 to 69 receiving one or more employment benefits (in their main job) has remained over 87 per cent since 1985, with 89 per cent being recorded in August 1990.

The non-wage benefits most widely available to employees are leave benefits (available to two-thirds or more of employees) and superannuation (received by more than half of all employees). The proportion of employees receiving a superannuation benefit (i.e., belonging to a superannuation scheme or fund arranged by their employer) was steady from 1985 to 1988 at approximately 40 per cent. By August 1989 and 1990, however, the proportions had increased to 47 per cent and 52 per cent respectively. The next most common benefits in 1990 were goods and services (18%) and transport (17%).

Full-time employees who worked in the Agriculture, forestry, fishing and hunting industry group reported the lowest incidence of receipt of at least one benefit (90%) whereas those in the Electricity, gas and water; Communication and Public administration and defence industry groups reported the highest incidence of receiving at least one benefit (99%).

ALL EMPLOYEES: TYPE OF BENEFIT RECEIVED AND WEEKLY EARNINGS IN MAIN JOB AUGUST 1990

	Weekly earnings in main job ($)									
	Under 240	*240 to 319*	*320 to 399*	*400 to 479*	*480 to 559*	*560 to 639*	*640 to 719*	*720 to 799*	*800+*	*Total*
Total employees ('000)	**1,299.1**	**695.9**	**1,084.0**	**1,018.0**	**865.3**	**522.1**	**367.5**	**326.0**	**387.7**	**6,565.6**
	— percentage of employees receiving benefit —									
Type of benefit										
Holiday expenses	0.7	2.2	3.0	4.0	4.6	5.1	5.9	7.5	8.9	3.7
Low-interest finance	0.6	1.9	1.8	3.1	2.9	2.7	4.0	4.3	7.0	2.6
Goods and services	21.1	20.3	19.0	16.3	15.4	14.4	13.0	13.7	16.2	17.5
Housing	2.0	2.9	2.4	2.9	3.8	3.8	3.7	5.6	7.2	3.3
Electricity	1.8	2.1	1.8	1.8	2.0	1.7	1.8	2.6	3.6	2.0
Telephone	4.1	5.0	4.5	6.7	10.1	11.4	13.2	18.8	25.6	8.5
Transport	6.5	9.8	10.2	16.0	21.0	23.1	29.0	36.4	45.9	17.2
Medical	1.3	2.0	2.5	3.2	3.5	4.2	5.0	6.8	11.1	3.5
Union dues	0.9	0.7	1.7	1.8	2.1	3.2	5.2	5.9	10.1	2.5
Club fees	0.4	0.6	0.5	1.1	1.2	1.9	3.0	4.1	7.9	1.5
Entertainment allowance	*0.3	*0.4	0.4	1.0	2.2	3.3	4.0	6.3	10.2	2.0
Shares	0.8	1.4	1.7	2.2	3.1	3.0	3.9	6.4	8.4	2.6
Study leave	1.4	1.7	1.4	2.3	3.4	3.6	4.0	3.7	3.0	2.4
Superannuation	21.0	43.0	53.0	58.7	63.8	63.8	69.1	69.0	72.9	51.6
Child care/education expenses	*0.2	*0.1	*0.1	*0.3	*0.3	*0.5	*0.7	*0.4	*0.8	0.3
Sick leave	35.7	75.2	88.5	91.2	93.4	93.6	94.5	93.1	92.3	78.9
Annual leave	35.8	76.4	89.1	91.8	94.1	93.3	94.8	93.8	92.4	79.4
Long service leave	23.8	55.6	72.1	78.4	82.8	83.7	87.4	84.9	82.1	66.2

Source: Employment Benefits, Australia (6334.0).

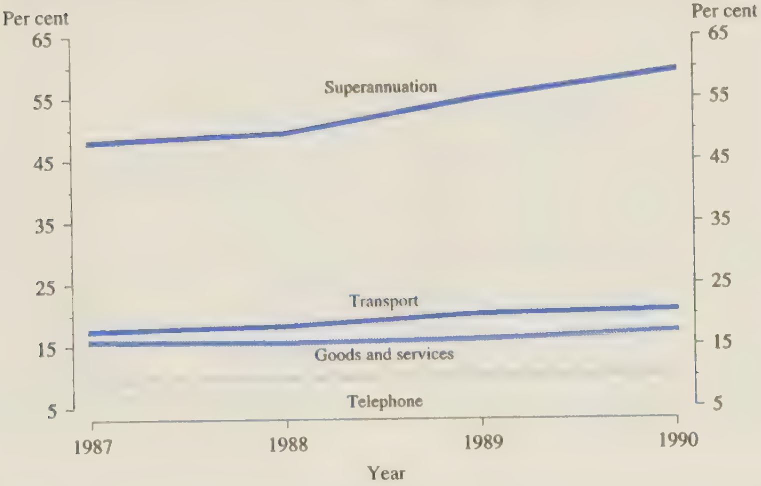
ALL EMPLOYEES: TYPE OF BENEFIT RECEIVED AND HOURS WORKED IN MAIN JOB AUGUST 1990

	Hours worked in main job						
	Under 20	*20–29*	*30–34*	*35–39*	*40*	*41+*	*Total*
Total employees ('000)	**1,168.8**	**538.8**	**506.3**	**1,328.8**	**1,354.2**	**1,668.6**	**6,565.6**
	— percentage of employees receiving benefit —						
Type of benefit							
Holiday expenses	2.3	3.1	3.2	3.5	3.7	5.3	3.7
Low-interest finance	1.3	1.8	3.3	2.6	2.9	3.1	2.6
Goods and services	19.8	18.1	14.8	15.7	15.9	19.4	17.5
Housing	1.6	1.6	2.1	2.2	3.2	6.2	3.3
Electricity	1.2	1.0	1.4	1.1	1.5	4.1	2.0
Telephone	4.8	5.0	5.6	5.4	7.5	16.6	8.5
Transport	8.4	8.8	13.8	11.5	16.5	32.4	17.2
Medical	1.9	2.2	3.9	2.7	3.7	5.2	3.5
Union dues	1.1	0.8	1.8	1.5	2.3	5.3	2.5
Club fees	0.6	*0.4	1.1	0.9	1.3	3.3	1.5
Entertainment allowance	0.5	0.9	0.8	1.0	1.7	4.8	2.0
Shares	1.1	1.5	2.0	1.7	2.2	5.2	2.6
Study leave	1.9	1.9	3.4	2.7	2.3	2.4	2.4
Superannuation	28.4	40.3	56.7	61.1	55.7	59.2	51.6
Child care/education expenses	*0.2	*0.2	*0.2	*0.2	*0.2	*0.6	0.3
Sick leave	38.2	60.3	83.4	93.3	92.5	89.5	78.9
Annual leave	38.3	60.5	83.7	93.6	93.5	90.2	79.4
Long-service leave	32.3	48.2	72.3	80.7	76.7	73.9	66.2

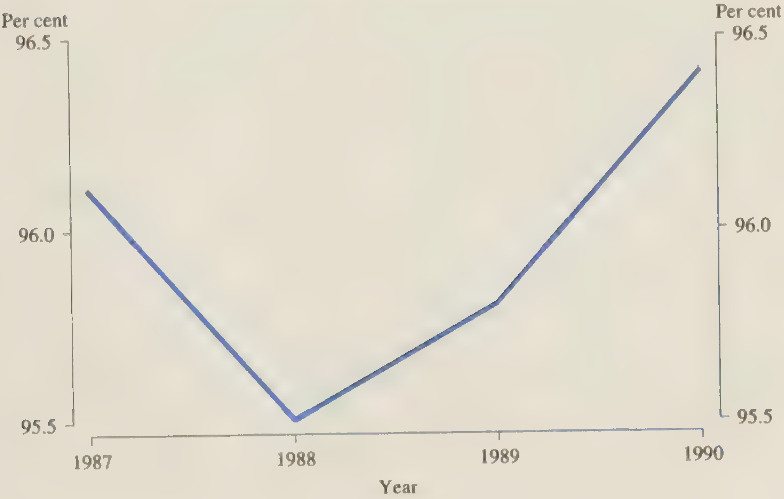
Source: Employment Benefits, Australia (6334.0).

FULL-TIME EMPLOYEES: SELECTED BENEFITS RECEIVED, AUGUST 1987 TO 1990

SUPERANNUATION, TRANSPORT, GOODS AND SERVICES AND TELEPHONE BENEFITS



RECEIVED ONE OR MORE BENEFITS



Source: Employment Benefits, Australia (6334.0).

Labour costs

Labour costs refer to the various costs incurred by the employer in the employment of labour in addition to the wages and salaries and non-wages benefits paid to employees. The following table shows the main components of labour costs and their contribution to the cost of employing labour. Training costs, which are also labour costs, are dealt with in the section on Training later in this chpater..

MAJOR LABOUR COSTS BY INDUSTRY, 1989–90

Type of labour cost	Mining	Manufacturing	Electricity, gas and water	Construction	Wholesale and retail trade	Transport, storage and communication	Finance, property and business services	Public administration and defence	Community services	Recreation, personal and other services	Total
					TOTAL COSTS ($ million)						
Earnings	3,316	28,032	3,597	9,042	23,704	12,056	21,775	8,289	30,665	6,920	147,395
Other labour costs	495	3,596	633	1,211	2,285	2,079	2,765	1,276	3,438	527	18,304
Payroll tax	180	1,342	194	316	881	589	950	104	638	196	5,390
Superannuation	155	1,086	327	537	753	1,089	1,129	909	2,135	176	8,295
Workers' compensation	115	1,009	98	304	484	345	270	232	622	131	3,610
Fringe benefits tax	46	159	14	53	168	56	416	31	42	24	1,009
Total major labour costs	3,811	31,628	4,230	10,252	25,989	14,136	24,540	9,564	34,103	7,447	165,699
					AVERAGE COSTS PER EMPLOYEE						
					— dollars —						
Earnings	43,752	27,306	33,508	29,922	19,179	28,547	28,453	26,799	24,376	14,960	24,709
Other labour costs	6,533	3,503	5,895	4,006	1,849	4,923	3,613	4,124	2,733	1,139	3,068
Payroll tax	2,371	1,307	1,807	1,045	713	1,395	1,241	337	507	424	904
Superannuation	2,048	1,058	3,043	1,777	609	2,578	1,475	2,938	1,698	380	1,391
Workers' compensation	1,512	983	916	1,008	391	817	353	749	495	283	605
Fringe benefits tax	603	155	129	177	136	132	544	100	34	52	169
Total major labour costs	50,285	30,809	39,403	33,928	21,029	33,470	32,066	30,923	27,109	16,099	27,777
Superannuation Cost per employee covered	2,403	1,342	3,134	2,595	1,270	3,305	2,485	3,240	2,127	1,274	2,082
					— per cent —						
Employees covered	85.2	78.8	97.1	68.5	48.0	78.0	59.3	90.7	79.8	29.9	66.8

Source: *Labour Costs, Australia (6348.0).*

Hours of work and work patterns

It is widely recognised that statistics of hours of work and patterns of work are essential for the study of economic activity, productivity, working conditions, living standards and the quality of life of working people. In this section, a range of data has been brought together on work patterns and hours of work.

EMPLOYED PERSONS: AGGREGATE AND AVERAGE WEEKLY HOURS WORKED(a) ANNUAL AVERAGE(b), 1990–91

		Females			
	Males	*Married*	*Not married*	*Total*	*Persons*
Aggregate weekly hours worked (million)	183.4	56.5	38.4	94.9	278.2
By full-time workers	177.7	41.5	33.0	74.5	252.2
By part-time workers	5.7	14.9	5.4	20.3	26.0
Average weekly hours worked	40.3	28.4	30.6	29.3	35.7
By full-time workers	42.7	39.2	38.0	38.7	41.4
By part-time workers	14.9	16.1	13.9	15.5	15.4
By wage and salary earners	39.2	28.5	30.5	29.3	34.9
By other than wage and salary earners	46.0	28.3	32.3	28.9	40.2
Average weekly hours worked by persons who worked one hour or more in the reference week	42.4	30.0	32.0	30.8	37.6
By full-time workers	44.8	41.3	39.8	40.6	43.5
By part time workers	15.7	17.1	14.6	16.3	16.2

(a) The estimates refer to actual hours worked not hours paid for. (b) Averages calculated on quarterly estimates.
Source: The Labour Force, Australia (6203.0).

EMPLOYED PERSONS: AVERAGE WEEKLY HOURS WORKED(a) BY INDUSTRY ANNUAL AVERAGE(b), 1990–91

		Females		
Industry	*Males*	*Married*	*Total*	*Persons*
Agriculture, forestry, fishing and hunting	48.8	29.1	29.6	43.2
Agriculture and services to agriculture	49.2	29.2	29.7	43.3
Forestry and logging, fishing and hunting	44.2	25.6	27.0	41.1
Mining	42.1	34.9	36.0	41.5
Manufacturing	40.0	31.5	32.4	37.9
Food, beverages and tobacco	39.5	31.7	31.6	37.0
Metal products	40.2	30.2	31.4	38.9
Other manufacturing	40.1	31.7	32.7	37.9
Electricity, gas and water	36.0	30.4	32.4	35.6
Construction	39.3	18.2	21.0	36.9
Wholesale and retail trade	40.6	29.2	27.3	34.6
Wholesale trade	41.8	29.6	31.4	38.5
Retail trade	39.9	29.0	26.2	32.9
Transport and storage	41.0	27.0	30.4	38.9
Communication	35.3	28.9	30.3	33.9
Finance, property and business services	41.0	28.2	31.0	36.1
Public administration and defence	36.6	29.9	31.7	34.6
Community services	39.1	27.9	29.6	32.8
Recreation, personal and other services	38.5	27.7	27.5	32.3
All industries	**40.3**	**28.4**	**29.3**	**35.7**

(a) The estimates refer to actual hours worked, not hours paid for. (b) Averages calculated on quarterly estimates.
Source: The Labour Force, Australia (6203.0).

Changes in the amount of overtime worked by employees and the percentage of employees working overtime are good indicators of changing economic conditions. The following statistics show an overall decline in the amount of overtime worked since 1989.

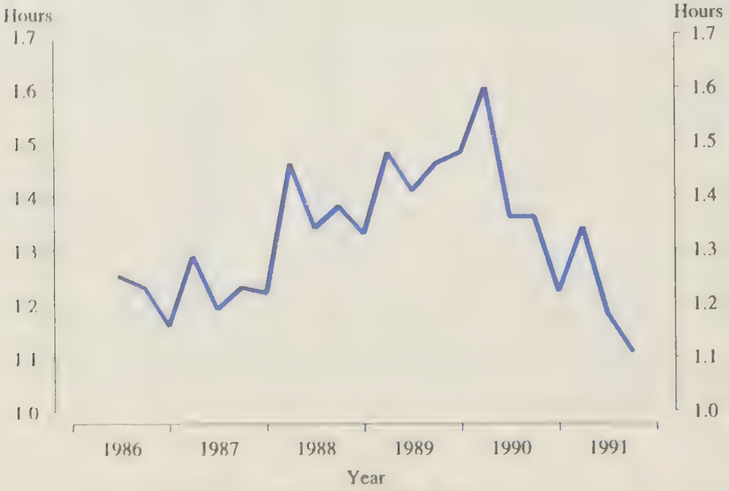
OVERTIME BY INDUSTRY

Industry	*May 1986*	*May 1987*	*May 1988*	*May 1989*	*May 1990*	*May 1991*
AVERAGE WEEKLY OVERTIME HOURS PER EMPLOYEE WORKING OVERTIME						
Mining	9.2	9.4	11.1	11.7	10.7	11.6
Manufacturing	7.8	7.9	8.3	8.7	8.8	7.7
Electricity, gas and water	7.0	7.2	7.6	7.8	7.9	7.6
Construction	7.0	8.0	8.4	8.8	8.4	11.3
Wholesale trade	6.6	6.8	6.9	6.5	7.7	5.8
Retail trade	3.9	3.7	4.4	4.5	4.6	4.2
Transport and storage; Communication	7.9	7.3	9.3	8.5	7.6	7.5
Public administration and defence(a)	5.3	5.0	5.7	5.9	5.7	5.5
Community services	6.0	5.9	5.8	6.3	6.3	5.8
Other(b)	5.2	5.4	5.7	5.4	5.4	4.9
All industries	**6.8**	**6.8**	**7.3**	**7.4**	**7.3**	**6.9**
PERCENTAGE OF EMPLOYEES WORKING OVERTIME						
Mining	46.2	44.1	44.0	47.3	52.5	53.0
Manufacturing	31.5	33.6	32.6	35.5	34.1	30.6
Electricity, gas and water	23.8	21.0	23.3	25.0	27.0	24.1
Construction	25.4	21.5	26.4	28.1	31.3	21.3
Wholesale trade	15.3	15.2	19.3	19.2	18.3	18.3
Retail trade	17.8	16.8	17.9	16.3	17.5	14.6
Transport and storage; Communication	31.5	28.6	31.2	33.0	28.3	27.0
Public administration and defence(a)	14.0	13.7	14.7	13.5	16.0	14.4
Community services	6.2	7.0	6.6	6.5	7.4	7.4
Other(b)	9.5	10.0	12.1	12.6	10.5	7.6
All industries	**18.1**	**18.1**	**19.0**	**19.6**	**18.7**	**16.1**

(a) Excludes permanent defence forces. (b) Includes finance, property and business services and recreation, personal and other services.

Source: Job Vacancies and Overtime, Australia (6354.0).

AVERAGE WEEKLY OVERTIME HOURS PER EMPLOYEE

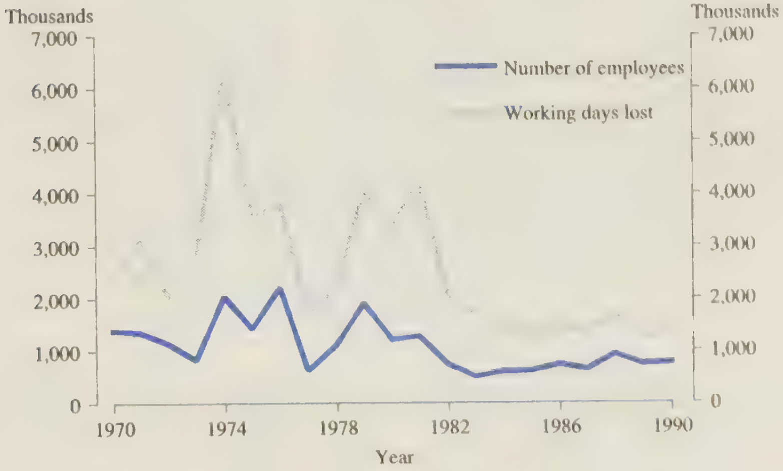


Source: Job Vacancies and Overtime, Australia (6354.0).

Industrial disputes

This section presents statistics of industrial disputes involving the loss of ten working days or more at the establishments where stoppages occurred. Working days lost refer to working days lost by workers directly or indirectly involved in disputes at the establishments where the stoppages occurred.

WORKING DAYS LOST AND NUMBER OF EMPLOYEES INVOLVED (DIRECTLY AND INDIRECTLY), DISPUTES IN PROGRESS



Source: Industrial Disputes, Australia (6321.0).

Over the period 1970 to 1990, the reported number of working days lost in any one year has varied between 6.3 million (in 1974) and 1.2 million (in 1989). The number has been consistently less than 2 million since 1982.

INDUSTRIAL DISPUTES IN PROGRESS DURING EACH YEAR 1985 TO 1990

	Number of disputes		*Employees involved ('000)*		
Year	*Commenced in year*	*Total(a)*	*Newly involved(b)*	*Total(a)*	*Working days lost ('000)*
1985	1,876	1,895	552.7	570.5	1,256.2
1986	1,747	1,754	673.9	691.7	1,390.7
1987	1,512	1,517	593.4	608.8	1,311.9
1988	1,502	1,508	893.9	894.4	1,641.4
1989	1,391	1,402	706.4	709.8	1,202.4
1990	1,189	1,193	725.9	729.9	1,376.5

(a) Refers to all disputes in progress during the year. (b) Comprises workers involved in disputes which commenced during the year and additional workers involved in disputes which continued from the previous year.

Source: Industrial Disputes, Australia (6321.0).

INDUSTRIAL DISPUTES IN PROGRESS DURING EACH YEAR 1985 TO 1990
WORKING DAYS LOST BY INDUSTRY
('000)

	Mining		Manufacturing					
Year	Coal	Other	Metal products, machinery and equipment	Other	Construction	Transport and storage; Communication	Other industries (a)	All industries
1985	233.6	106.4	108.1	189.4	175.3	179.8	263.7	1,256.2
1986	362.0	179.4	187.4	205.3	117.7	57.6	281.4	1,390.7
1987	291.8	55.7	199.6	195.5	194.5	92.5	282.3	1,311.9
1988	471.3	97.4	309.5	117.4	207.9	75.0	362.9	1,641.4
1989	164.8	34.2	201.1	186.7	117.0	70.7	427.9	1,202.4
1990	150.5	86.7	536.3	133.4	62.2	129.9	277.5	1,376.5

(a) Includes: Agriculture, etc.; Electricity, etc.; Wholesale and Retail trade; Finance, etc.; Public administration, etc.; Community services; Recreation and personal services.

Source: Industrial Disputes, Australia (6321.0).

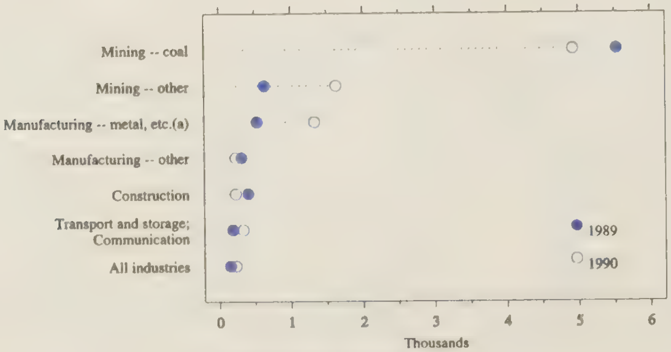
INDUSTRIAL DISPUTES IN PROGRESS DURING EACH YEAR 1985 TO 1990
WORKING DAYS LOST PER THOUSAND EMPLOYEES BY INDUSTRY

	Mining		Manufacturing					
Year	Coal	Other	Metal products, machinery and equipment	Other	Construction	Transport and storage; Communication	Other industries (a)	All industries
1985	6,892	1,928	256	312	666	430	71	228
1986	10,741	3,328	445	328	458	135	72	242
1987	8,920	1,072	479	305	743	217	70	223
1988	15,548	1,777	750	183	725	177	85	269
1989	5,505	642	473	283	374	160	97	190
1990	4,879	1,631	1,293	212	204	299	62	217

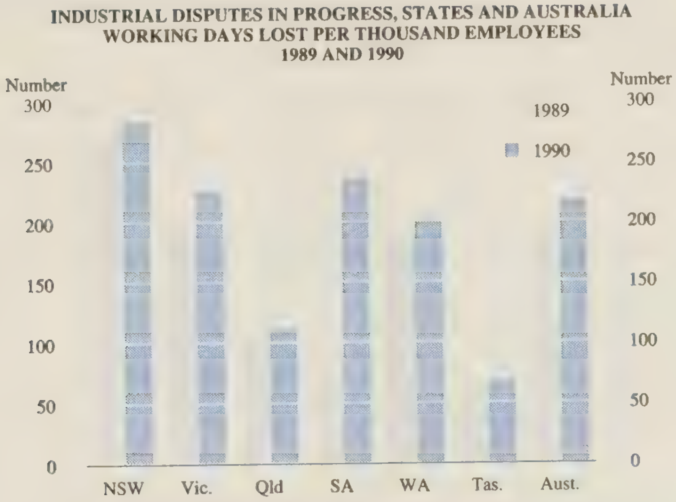
(a) Includes: Agriculture, etc.; Electricity, etc.; Wholesale and Retail trade; Finance, etc.; Public administration, etc.; Community services; Recreation and personal services.

Source: Industrial Disputes, Australia (6321.0).

INDUSTRIAL DISPUTES IN PROGRESS BY INDUSTRY
WORKING DAYS LOST PER THOUSAND EMPLOYEES
1989 AND 1990



(a) Metal products, machinery and equipment.
Source: Industrial Disputes, Australia (6321.0).



Source: Industrial Disputes, Australia (6321.0).

INDUSTRIAL DISPUTES ENDING DURING EACH YEAR 1988 TO 1990 DURATION, CAUSE AND METHOD OF SETTLEMENT, WORKING DAYS LOST ('000)

	1988	*1989*	*1990*
DURATION OF DISPUTE			
Up to and including 1 day	732.9	516.4	418.9
Over 1 and up to and including 2 days	113.7	75.9	601.3
Over 2 and less than 5 days	144.2	135.9	97.8
5 and less than 10 days	547.5	124.3	93.8
10 and less than 20 days	132.7	182.8	72.4
20 days and over	42.7	109.3	114.0
Total	**1,713.8**	**1,144.5**	**1,398.2**
CAUSE OF DISPUTE			
Wages	507.9	169.6	151.1
Hours of work	31.5	5.6	4.3
Managerial policy	897.6	625.2	1,041.7
Physical working conditions	158.1	61.9	99.3
Trade unionism	34.0	73.3	52.4
Other(a)	84.6	208.8	49.5
Total	**1,713.8**	**1,144.5**	**1,398.2**
METHOD OF SETTLEMENT(b)			
Negotiation	176.1	185.6	213.5
State legislation	102.7	122.5	167.6
Federal and joint Federal-State legislation	788.2	249.7	352.4
Resumption without negotiation	598.4	577.1	660.9
Other methods(c)	48.3	9.5	3.9
Total	**1,713.8**	**1,144.5**	**1,398.2**

(a) Includes 'Leave, pensions, compensation provisions, etc.'. (b) Method directly responsible for ending the stoppage of work. (c) Includes 'Mediation', 'Filling the places of workers on strike or locked out' and 'Closing down the establishment permanently'.

Source: Industrial Disputes, Australia (6321.0).

Trade unions

In recent times a number of union amalgamations has seen the total number of unions decrease and a trend towards larger unions. The following table illustrates this trend.

NUMBER OF UNIONS ACCORDING TO SIZE OF UNION

	30 June 1989		*30 June 1990*		*30 June 1991*	
Size of union (number of members)	*Number*	*Proportion of total (per cent)*	*Number*	*Proportion of total (per cent)*	*Number*	*Proportion of total (per cent)*
Under 1,000	136	45.5	136	46.1	124	45.1
1,000 and under 5,000	79	26.4	75	25.4	68	24.7
5,000 and under 20,000	38	12.7	39	13.2	39	14.2
20,000 and under 50,000	28	9.4	27	9.2	25	9.1
50,000 and over	18	6.0	18	6.1	19	6.9
Total	**299**	**100.0**	**295**	**100.0**	**275**	**100.0**

Source: Trade Union Statistics, Australia (6323.0).

A survey conducted in August 1990 found that of the 6,565,600 employees aged 15 to 69 years, 2,659,600 were trade union members (in connection with their main job).

The survey revealed that trade union membership has declined from 50 per cent in 1982 to 41 per cent in 1990.

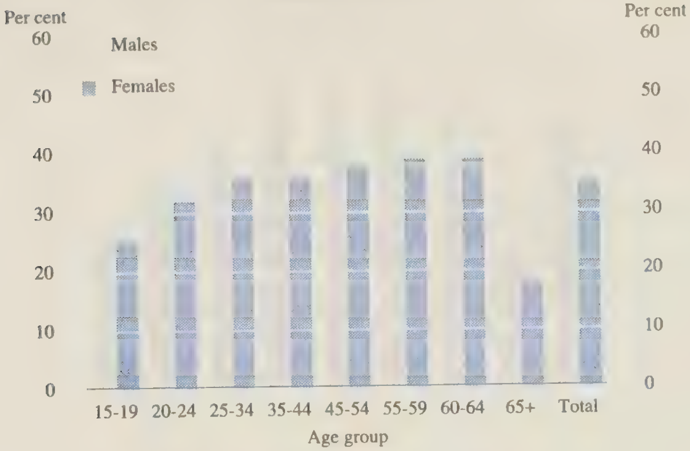
The Communications industry group was the most unionised with 76 per cent of employees being trade union members while the Agriculture, forestry, fishing and hunting industry group was the least unionised with 13 per cent of employees being trade union members.

PROPORTION OF ALL EMPLOYEES WHO WERE TRADE UNION MEMBERS INDUSTRY AND SECTOR, AUGUST 1990 (per cent)

	Males			*Females*			*Persons*		
Industry	*Public*	*Private*	*Total(a)*	*Public*	*Private*	*Total(a)*	*Public*	*Private*	*Total(a)*
Agriculture, forestry, fishing and hunting	65	11	14	*70	*6	*9	66	10	13
Mining	*81	67	67	*100	*19	*23	*83	62	63
Manufacturing	79	49	49	*81	36	37	80	45	46
Electricity, gas and water	83	*80	83	54	*56	53	80	74	79
Construction	79	48	50	*33	*3	*6	73	43	45
Wholesale and retail trade	*35	20	20	*49	25	25	40	23	23
Transport and storage	86	49	64	66	23	32	84	42	58
Communication	84	*75	84	57	*0	55	76	*58	76
Finance, property and business services	66	23	29	69	20	28	68	21	29
Public administration and defence	68	*61	67	50	*22	49	60	46	60
Community services	70	27	56	60	26	46	64	26	49
Recreation, personal and other services	73	23	28	53	22	23	64	22	25
Total	**74**	**35**	**45**	**59**	**25**	**35**	**67**	**31**	**41**

(a) Includes persons for whom sector could not be determined.
Source: Trade Union Members, Australia (6325.0).

PROPORTION OF ALL EMPLOYEES WHO WERE MEMBERS OF A TRADE UNION, BY AGE
AUGUST 1990



Source: Trade Union Members, Australia (6325.0).

TRAINING

Training is a major factor in both labour market adjustment and occupational mobility. In addition, the manner in which training is acquired can be a major influence on labour market efficiency. National estimates of the expenditure by employers for the formal training of their employees are provided by the Training Expenditure Survey. The survey also provides estimates of the paid time employees spend receiving formal training.

Further, national details about the extent and types of training and education being undertaken by wage and salary earners are provided through the 1989 survey of How Workers Get Their Training.

Training expenditure by employers

This section presents estimates of the expenditure by employers on the formal training of their employees, and of the paid time employees spent receiving formal training, obtained from a survey covering the September quarter 1990.

Formal training is defined as all training activities which have a structured plan and format designed to develop job related skills and competence. By contrast, informal training, (i.e., unstructured on-the-job training, being shown how to do things as the need arises or learning by doing a job), was excluded from the scope of the survey.

It is estimated that overall, Australian employers spent the equivalent of 2.6 per cent of gross wages and salaries on the formal training of their employees during the period 1 July to 30 September 1990. Average expenditure reported on formal training was $163 per employee. Employees received an average of 5.9 hours of formal training over the three months. By comparison, during the period 1 July to 30 September 1989, training expenditure was estimated to be 2.2 per cent of gross wages and salaries, $133 was spent per employee and employees received an average of 5.7 hours training.

Employers in the private sector with gross wages and salaries of $50,000 and over for the period 1 July to 30 September 1990 (i.e., gross wages and salaries of at least $200,000 per annum) spent an average of 2.4 per cent of gross wages and salaries on formal training. An estimated 58 per cent of these private sector employers reported some training expenditure.

AVERAGE TRAINING EXPENDITURE BY EMPLOYERS, SECTOR AND EMPLOYER SIZE JULY TO SEPTEMBER 1990

	1–19 employees	*20–99 employees*	*100 or more employees*	*Total*
	PRIVATE			
Total training expenditure (% of gross wages and salaries)	1.35	1.89	2.79	2.22
Total training expenditure per employee ($)	67.9	112.5	181.8	132.1
Training hours per employee	4.0	4.09	5.97	4.95
Employers reporting training expenditure (% of all employers)	18.3	62.8	91.9	23.6
	PUBLIC			
Total training expenditure (% of gross wages and salaries)	*1.63	1.81	3.25	3.19
Total training expenditure per employee ($)	*75.5	127.9	234.9	229.9
Training hours per employee	*3.32	4.25	8.23	8.05
Employers reporting training expenditure (% of all employers)	*41.7	94.6	99.8	72.7
	TOTAL			
Total training expenditure (% of gross wages and salaries)	1.35	1.88	3.03	2.57
Total training expenditure per employee ($)	68.0	113.5	207.5	162.8
Training hours per employee	3.99	4.10	7.06	5.92
Employers reporting training expenditure (% of all employers)	18.5	64.3	93.7	24.4

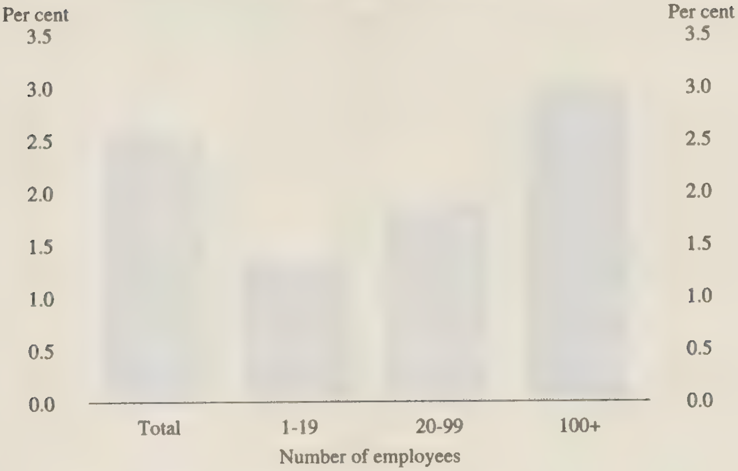
Source: Employer Training Expenditure, Australia (6353.0).

AVERAGE TRAINING EXPENDITURE BY EMPLOYERS, SECTOR AND INDUSTRY JULY TO SEPTEMBER 1989

	Per cent of gross wages and salaries					
	Private			*Total private and public*		
Industry	*In-house*	*External*	*Total*	*In-house*	*External*	*Total*
Mining	*1.4	*0.5	*1.9	*1.5	0.5	2.0
Manufacturing	1.4	0.7	2.1	1.5	0.7	2.2
Electricity, gas and water	3.0	0.9	4.0	2.8	1.0	3.7
Construction	*0.1	0.7	0.8	*0.6	0.7	1.2
Wholesale and retail trade	1.0	0.5	1.5	1.0	0.5	1.5
Transport and storage	*0.4	*0.5	*0.9	2.1	*0.4	2.5
Communication	*0.7	*0.5	*1.1	3.2	0.5	3.7
Finance, property and business services	1.6	0.7	2.3	1.7	0.7	2.4
Public administration and defence	. .	. .	. .	1.9	0.7	2.6
Community services	0.8	0.5	1.3	2.0	0.5	2.5
Recreational, personal and other services	*0.2	*0.6	*0.8	*0.3	*0.6	0.9
All industries	**1.1**	**0.6**	**1.7**	**1.6**	**0.6**	**2.2**

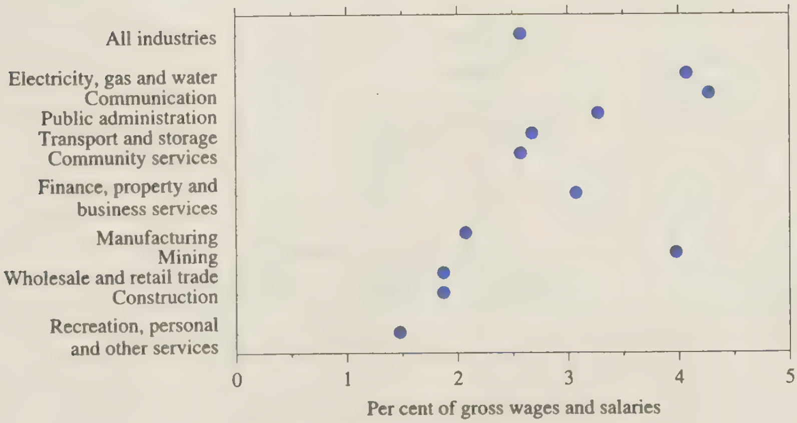
Source: Employer Training Expenditure, Australia (6353.0).

AVERAGE TRAINING EXPENDITURE: ALL EMPLOYERS EMPLOYER SIZE, JULY TO SEPTEMBER 1990
(per cent of gross wages and salaries)



Source: Employer Training Expenditure, Australia (6353.0).

AVERAGE TRAINING EXPENDITURE BY EMPLOYERS, BY INDUSTRY, JULY TO SEPTEMBER 1990



Source: Employer Training Expenditure, Australia (6353.0).

AVERAGE TRAINING EXPENDITURE BY EMPLOYERS AS A PERCENTAGE OF GROSS WAGES AND SALARIES, BY SECTOR AND INDUSTRY, JULY TO SEPTEMBER 1990

(per cent)

		Private			Total	
Industry	*In–house*	*External*	*Total*	*In–house*	*External*	*Total*
Mining	2.7	1.3	4.0	2.7	1.3	4.0
Manufacturing	1.3	0.7	2.0	1.4	0.7	2.1
Food, beverages and tobacco	0.8	0.5	1.3	0.8	0.5	1.3
Textiles, clothing and footwear	1.2	0.4	1.6	1.2	0.4	1.6
Wood, wood products	*0.5	0.7	1.2	*0.5	0.7	1.3
Paper, paper products	1.5	0.8	2.3	1.5	0.8	2.3
Chemical, petroleum and coal products	2.6	0.9	3.5	2.6	0.9	3.5
Non-metallic mineral products	0.7	0.7	1.4	0.7	0.7	1.4
Basic metal products	2.4	0.9	3.4	2.4	0.9	3.4
Fabricated metal, machinery and equipment	0.9	0.8	1.7	1.0	0.8	1.8
Transport equipment	2.4	1.0	3.4	2.8	1.0	3.8
Miscellaneous manufacturing	*1.0	*0.5	1.5	*1.0	*0.5	1.5
Electricity, gas and water	2.6	1.0	3.7	2.9	1.2	4.1
Construction	0.5	1.2	1.7	0.8	1.1	1.9
Non-building construction	0.5	0.5	1.0	1.2	0.5	1.8
Other construction	0.5	1.3	1.8	0.7	1.3	2.0
Wholesale and retail trade	1.3	0.6	1.9	1.3	0.6	1.9
Wholesale trade	1.6	0.8	2.4	1.6	0.8	2.4
Retail trade	1.0	0.5	1.5	1.0	0.5	1.5
Transport and storage	1.5	0.5	2.0	2.2	0.4	2.7
Air transport	3.1	0.3	3.4	5.6	0.2	5.8
Other transport and storage	1.2	0.6	1.8	1.5	0.5	2.0
Communication	1.1	1.1	2.1	3.6	0.7	4.3
Finance, property and business services	2.2	1.0	3.3	2.2	0.9	3.1
Finance	3.4	0.9	4.3	3.5	0.8	4.3
Insurance	2.8	*1.5	4.3	2.8	*1.4	4.3
Property and business services	1.4	1.0	2.5	1.3	0.9	2.2
Public administration and defence	. .	. .	. .	2.1	1.2	3.3
Community services	1.2	0.6	1.8	1.8	0.7	2.6
Health	0.8	0.3	1.2	1.5	0.5	2.0
Other community services	1.7	1.0	2.7	2.1	0.8	2.9
Recreational, personal and other services	0.7	0.7	1.4	0.9	0.6	1.5
Entertainment and recreation	0.4	*0.2	0.7	*1.0	*0.3	1.4
Restaurants, hotels and clubs	0.7	*0.5	1.2	0.7	*0.5	1.2
Personal services	*1.3	2.0	3.4	*1.3	2.0	3.3
All industries	**1.4**	**0.8**	**2.2**	**1.8**	**0.8**	**2.6**

Source: Employer Training Expenditure, Australia (6353.0).

AVERAGE PAID TRAINING TIME PER EMPLOYEE(a) BY FIELD OF TRAINING AND SECTOR
JULY TO SEPTEMBER 1990
(hours per employee)

Field of training(b)	*In-house*	*External*	*Total*
	PRIVATE		
Induction	0.35	*0.00	0.35
General supervision	0.23	*0.05	0.29
General computing	0.24	0.13	0.37
Health and safety	0.17	0.06	0.22
Management and professional	0.32	0.28	0.60
Technical and para-professional	0.19	0.11	0.30
Trade and apprenticeship	0.43	1.43	1.86
Clerical, sales	0.42	0.10	0.52
Plant and machinery	0.24	0.03	0.27
Other	0.12	*0.04	0.16
All fields	*2.70*	*2.24*	*4.95*
	PUBLIC		
Induction	0.36	*0.01	0.36
General supervision	0.30	0.07	0.37
General computing	0.44	0.16	0.60
Health and safety	0.33	0.09	0.42
Management and professional	0.80	1.00	1.79
Technical and para-professional	1.81	0.43	2.24
Trade and apprenticeship	0.49	0.47	0.95
Clerical, sales	0.50	0.10	0.60
Plant and machinery	0.27	0.04	0.31
Other	0.32	0.08	0.40
All fields	*5.60*	*2.45*	*8.05*
	TOTAL		
Induction	0.35	0.01	0.36
General supervision	0.25	0.06	0.31
General computing	0.30	0.14	0.44
Health and safety	0.22	0.07	0.29
Management and professional	0.47	0.51	0.98
Technical and para-professional	0.70	0.21	0.91
Trade and apprenticeship	0.45	1.13	1.58
Clerical, sales	0.44	0.10	0.54
Plant and machinery	0.25	0.03	0.28
Other	0.18	0.05	0.24
All fields	**3.61**	**2.31**	**5.92**

(a) The total time receiving formal training averaged over the total number of employees. (b) Formal training was classified according to the main content of the course or program.

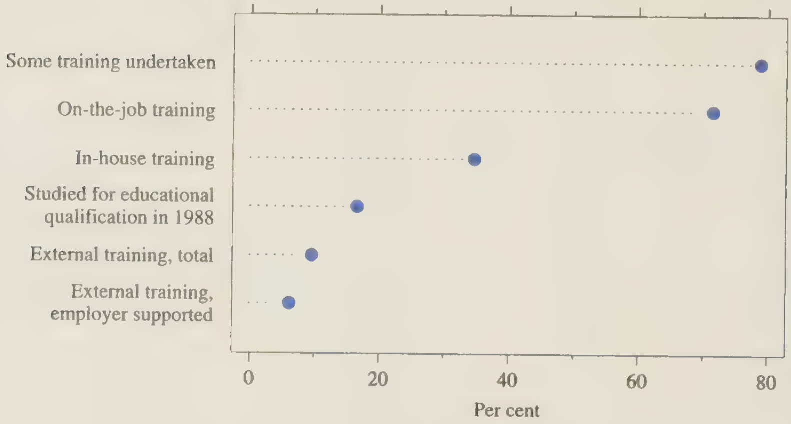
Source: Employer Training Expenditure, Australia (6353.0).

How workers get their training

The survey of How Workers Get Their Training was first conducted during the months of April, June and July 1989, and obtained information on the training and education undertaken by persons who had a wage or salary job in the previous twelve months. The survey found that the great majority of these persons, some 79 per cent, received some form of training.

The graph below shows that, during the previous twelve months, some 72 per cent of all employees received on-the-job training. A little more than a third undertook in-house training courses, 17 per cent studied for an educational qualification, and 10 per cent attended at least one external training course. Some workers received more than one form of training.

PARTICIPATION IN TRAINING BY WAGE AND SALARY EARNERS IN THE PREVIOUS TWELVE MONTHS, 1989



Source: How Workers Get Their Training (6278.0).

The table below shows the types of training undertaken in the previous twelve months by age and educational attainment.

The number of wage and salary earners undertaking training decreased with age from 93 per cent of persons aged 15 to 24 years, to 49 per cent of persons aged 55 to 64 years. Also, persons with post-school qualifications undertook more training (84%) than those without such qualifications (75%) over the twelve month period.

Overall, a similar proportion of males and females undertook training in external courses, in-house courses, on-the-job training, and study for an educational qualification.

CATEGORIES OF TRAINING UNDERTAKEN BY WAGE AND SALARY EARNERS IN THE PREVIOUS TWELVE MONTHS, BY SEX, AGE AND LEVEL OF EDUCATIONAL ATTAINMENT, 1989

		Training courses undertaken						
		External training						
	Studied for educational qualification in 1988	*Employer supported*	*Total*	*In-house*	*On-the-job*	*Some training under-taken*	*No training under-taken*	*Total*
				— per cent —				('000)
Age (years)								
15-24	37.9	4.2	7.1	30.3	87.7	92.6	7.4	1,705.3
25-34	13.8	7.8	11.9	39.6	76.0	83.2	16.8	1,939.1
35-44	9.0	8.0	12.0	40.2	68.1	77.1	22.9	1,621.9
45-54	5.2	6.5	9.3	31.5	56.5	64.6	35.4	977.9
55-64	2.9	3.1	4.7	20.4	40.9	49.0	51.0	460.5
Level of educational attainment								
With post-school qualifications	17.2	9.9	14.9	44.2	76.2	84.1	15.9	3,172.6
Post-graduate degree or graduate diploma	20.6	18.5	28.0	59.8	84.4	92.9	7.1	315.7
Bachelor degree or diploma	23.4	15.8	21.8	56.2	84.9	90.8	9.2	747.6
Trade qualification or apprenticeship	9.4	5.6	8.5	31.5	65.8	74.3	25.7	936.0
Post-secondary certificate	18.8	7.4	12.1	42.6	76.6	85.3	14.7	1,143.7
Other	*12.1	*7.9	*12.1	32.8	79.4	83.4	*16.6	29.6
Without post-school qualifications(a)	16.4	3.2	5.2	26.5	67.9	74.5	25.5	3,532.1
Attended highest level of secondary school available	33.4	6.2	8.5	36.6	79.4	87.5	12.5	1,006.6
Did not attend highest level of secondary school available	9.4	2.0	3.8	22.4	63.2	69.2	30.8	2,496.5
Left at age								
16 years or over	14.4	2.5	4.8	26.7	72.3	79.0	21.0	1,091.0
15 years or under	5.6	1.6	3.1	19.1	55.7	61.7	38.3	1,405.5
Total	**16.8**	**6.4**	**9.8**	**34.9**	**71.8**	**79.0**	**21.0**	**6,704.7**
Males	*17.0*	*7.4*	*10.4*	*35.1*	*71.1*	*78.8*	*21.2*	*3,740.7*
Females	*16.5*	*5.2*	*9.1*	*34.6*	*72.7*	*79.4*	*20.6*	*2,964.0*
				— '000 —				
Total	**1,124.0**	**429.2**	**658.4**	**2,337.5**	**4,814.4**	**5,300.1**	**1,404.6**	**6,704.7**
Males	*634.1*	*276.5*	*388.3*	*1,811.2*	*2,569.0*	*2,947.5*	*793.2*	*3,740.7*
Females	*489.9*	*152.7*	*270.1*	*1,026.4*	*2,155.4*	*2,352.6*	*611.5*	*2,964.0*

(a) Includes those who never attended school and those for whom secondary school qualifications could not be determined.

Source: How Workers Get Their Training, Australia (6278.0).

GOVERNMENT EMPLOYMENT AND TRAINING PROGRAMS

The Commonwealth Government, often in conjunction with State and Territory Governments, provides a wide range of labour market programs to assist the efficient functioning of the labour market and to improve the skills and employment prospects of people disadvantaged in the labour market. Labour force programs operating in 1991 are as follows.

Skills formation

The Commonwealth Government, the State and Territory Governments of Australia and the industrial parties are working in cooperation to develop a 'training culture' in Australia, recognising the importance of vocational education and training for the efficiency and productivity of the Australian economy. This 'training culture' revolves around a notion of 'life-long learning', including the availability of career paths and on-going skills formation for all Australians.

A key element of the 'training culture' is the implementation on a nationally consistent competency-based training system. This system aligns vocational education and training delivery, assessment and certification arrangements to competency standards developed by the industry parties. It is expected that competency-based training arrangements will be substantially implemented for skills formation activity, both entry-level and on-going, by the end of 1992.

Entry Level Training (ELT)

The aims of Entry Level Training (ELT) are to assist in meeting the long-term quantitative and qualitative workforce skill needs of the economy, and to enhance the long-term employment and career prospects of young Australians by providing a Commonwealth contribution to the cost of entry level training under apprenticeships and the Australian Traineeship System (ATS), designed to:

- achieve quality improvements to entry level training;
- provide greater equality of access to entry level training; and
- encourage industry and young people to invest in structured training.

ELT has three components, through which these aims are achieved:

- Commonwealth Rebate For Apprentice Full-time Training Scheme;
- Australian Traineeship System; and
- Special Entry Level Training.

Commonwealth Rebate for Apprentice Full-time Training Scheme (CRAFT)

The apprenticeship system has been the principal source of supply of skilled workers to the Australian labour market and, with the Australian Traineeship System, has provided significant job and structured training opportunities for school leavers.

Through CRAFT, incentives and support are provided to employers and apprentices within the framework of the State/Territory apprenticeship systems.

The objective of CRAFT is to maintain or improve the quality of, and equity of access to, apprentice training for young people and, having regard to labour market conditions, maintain or increase the numbers of apprentices undergoing and completing that training.

CRAFT assistance is provided under a number of elements:

- *Technical Education Rebate*, payable to employers to offset the costs associated with releasing their apprentices to undertake the technical education component of an approved basic trade course. Applies to all eligible employers with apprentices who commenced their apprenticeship prior to 1 January 1988.
- *Apprentice Training Incentive*, introduced on 1 January 1988 to progressively replace the Technical Education Rebate. Employers who take on, and indenture, apprentices after 1 January 1988 are able to apply for grants in respect of the commencement, recommencement and completion of an apprenticeship. Employers receive an extra $1,000 for taking on a young person classified by the Commonwealth Employment Service (CES) as disadvantaged in the labour market.
- *Off-the-Job Training*, payable to group training schemes for releasing apprentices to attend approved full-time instruction at their own or other industry training centres. Group schemes approved to train other group schemes' apprentices can also be compensated for designated training costs.
- *Living-Away-From-Home Allowance*, available to apprentices in their first and second year of apprenticeship where there is a need to live away from home to obtain or maintain their apprenticeship.
- *Fares Assistance*, available to apprentices, in approved trades, who have to move away from home to take up an apprenticeship.

Australian Traineeship System (ATS)

ATS aims to improve the long-term employment and career prospects of young people, and improve the national skills base, through fundamental improvements in arrangements for non-trades employment training by the development of broadly based, structured, entry level vocational training.

This program consists of a system of traineeships combining on-the-job and off-the-job training. The ATS aims to assist young people entering a particular industry or occupation and add to the stock of skills in the economy. This element of the Government's youth policy strategy was established as a stepping-stone into primary labour market jobs, to improve and increase broadly based, work related training and to improve the first step in a career path for participants.

The ATS is jointly administered by the Commonwealth Government and the State and Territory Governments. Employers, unions, training authorities and governments are involved in the continuing development of the system through the development of new traineeship packages as well as the monitoring and reviewing of existing ones.

Traineeships are generally for a 12 month period and involve on-the-job training and a minimum of 13 weeks formal vocational instruction (off-the-job component) in a TAFE college or other approved training centres.

The trainee is paid a trainee wage for the duration of the traineeship which is set with reference to relevant junior rates for the time spent on the job. Since the inception of the system over 54,000 young people have commenced a traineeship in a wide range of industries and occupations. Of these over 9,400 trainees commenced in 1990–91.

The Traineeship System has become more flexible since its introduction in 1985. This is evidenced in the availability of traineeships longer than one year and in the loosening of age restrictions, with revised curriculum arrangements, to make it more responsive to the needs of industry.

A range of financial support is available to assist with the development and operation of traineeships:

- a *Training Fee* of $1,000 per approved trainee to assist employers to offset the cost of providing on-the-job training. Employers are eligible to receive an additional $1,000 if they employ trainees assessed by the CES as being disadvantaged in the labour market;
- a *Re-establishment Grant* of $300 per trainee to encourage employers to take on unemployed trainees and complete their training;
- an *Off-the-Job Training Fee* (currently $1,900 to TAFE and up to $2,000 to other approved training providers) in respect of each trainee;
- a *Living-Away-From-Home Allowance*, available to trainees where there is a need to live away from home to obtain or maintain their traineeship; and
- *Fares Assistance*, available to trainees who have to move away from home to take up a traineeship.

Special Entry Level Training (SELT)

In addition to CRAFT and ATS, the Commonwealth has a number of programs directed at testing, developing and introducing innovative approaches to traditional entry-level training under the SELT component.

The objective of SELT is to provide young people with appropriate workplace skills and ensure that skills already acquired are not lost to the national skills base. It achieves this through the provision of special assistance to:

- expand the number of available apprenticeship and traineeship opportunities;
- increase the access of special groups to apprenticeship training opportunities; and
- assist in the development of improved approaches to entry level training.

SELT assistance is provided under a number of elements:

- *Special Trade Training Program*, directed at testing, developing and introducing new approaches to traditional apprentice training. The program provides for special preparatory courses for women as well as the ‘Tradeswomen on the Move’ projects — a joint Commonwealth/State strategy designed to encourage greater participation of young women in non-traditional trades. In addition, funding is provided to State and Territory Governments for the running of additional pre-vocational courses in TAFE and with non-TAFE training providers.
- *Group Training Schemes* cover apprentices and trainees under the ATS and aim to increase training opportunities with small companies which would not be able to recruit apprentices and trainees in their own right, by indenturing apprentices/trainees to a central body, such as an employer organisation or a training company. The Commonwealth provides assistance to group training projects to offset their administrative costs.
- *Disabled Apprentice Wage Subsidy* provides a subsidy to employers who indenture a person with disabilities as an apprentice. The subsidy may be provided for up to the duration of the apprenticeship and extra help may be granted to allow necessary workplace modifications and tutorial assistance. Tutorial assistance is also available to people with disabilities undertaking pre-apprenticeship courses.
- *Special Assistance Program* provides a range of measures to assist young people to maintain or complete their training so that skills are not lost to the economy.
- *Development Grants* to approved organisations and individuals to establish

competencies and standards for traineeship models and to develop on- and off-the-job training components including curricula and training materials.

- *Institutional Development Grants* to peak employer and union organisations to enable them to employ Traineeship Liaison Officers to facilitate the introduction of traineeships.
- *Monitoring Resource Grants* are given to State and Territory training authorities to monitor traineeships.
- *Evaluation Grants* are given to organisations and individuals to undertake evaluation studies of particular traineeship activities.

Industry Training Support

This program has four components:

- Innovative Training Projects;
- Industry Training Services;
- Training Services Australia (TSA); and
- Workplace Literacy.

Innovative Training Projects

In recognition of the pressures upon the training systems resulting from industry restructuring, the Innovative Training Projects components include measures designed to encourage a cooperative national effort in the improvement of vocational education and training arrangements. Financial assistance can be provided to industry to:

- upgrade workforce skills to meet structural and technological change;
- establish industry training foundations and skill centres;
- pilot test new and innovative training arrangements;
- facilitate industry restructuring through award restructuring processes;
- develop national curricula and competency based training and assessment procedures;
- establish enterprise based skill centres;
- assist in trainer training; and
- address national skill shortage issues.

One of the main projects, the National Skills Shortages Program, provides short–term training assistance to individuals and industry in occupations where skilled labour is in short supply. Particular emphasis is given to occupations identified as requiring temporary reliance on skilled migrants.

The primary objective of the National Skills Shortages Program is to minimise the effects of current and emerging skill shortages of national significance. Training programs are developed in conjunction with industry groups and training providers. The Department welcomes suggestions from industry groups as to areas of shortages of national significance.

The program provides:

- refresher training for persons with basic qualifications or experience but whose skills need updating;
- bridging training for overseas qualified persons seeking recognition of their qualifications in Australia; and
- skills upgrading of existing employees.

In recent years the Program has assisted training in a range of areas of identified national skill shortages including:

- physiotherapists/occupational therapists;
- aircraft maintenance engineers; and
- the computer industry.

An additional mechanism to stimulate industry's commitment to training, the Training Guarantee, has applied since 1 July 1990. The scheme requires employers with an annual national payroll of $200,000 (indexed to $214,000 in 1991-92 based on average weekly earnings) or more to spend 1 per cent of payroll (rising to 1.5% from 1 July 1992) on eligible training as broadly defined in the legislation. Under regulation, provision exists for exemption of the building and construction industry in those States/Territories where appropriate levies exist. A similar regulation for shearing and related occupations was introduced during the 1991 Budget sittings.

Employers who do not meet this obligation directly will be required to pay the shortfall to the Australian Taxation Office. Funds collected in this way will be paid into a Training Guarantee Fund for redistribution through the States and Territories for training purposes. Commonwealth administrative costs will be recovered from the Training Guarantee Fund before it is distributed.

Following enactment of an Amendment Bill in June 1991, there is now provision for establishing a system to recognise, and exempt from the provisions of the Training Guarantee, employers who can demonstrate they are outstanding trainers. This was implemented in late 1991.

Industry training services

In addition to schemes directed at the training of individuals, the Government provides assistance to industry to improve training, particularly in pursuit of micro-economic reform. Support is provided for a network of Industry Training Advisory Bodies which are autonomous, industry based and incorporated as companies or associations with membership representing employer and employee associations, the Commonwealth Government and State and Territory Governments. There are 134 National and State/Territory Industry Training Advisory Bodies covering 23 major industries representing more than half of the private sector work force.

The primary role of these Industry Training Advisory Bodies is to act as the authoritative voice on training matters within their industries and advise governments on the training implications of workplace reform, work practices and award restructuring. A secondary role is to initiate research into training matters and coordinate the development of training solutions to identified or emerging training needs.

The Commonwealth Government also supports the National Training Board (NTB). The NTB was established in February 1990 as a joint initiative of the Commonwealth Government and the State and Territory Governments of Australia. The role of the NTB is, in consultation and cooperation with industry, to ratify national competency standards for occupations and classifications in industry or enterprise awards or agreements determined by an industrial tribunal.

The NTB is incorporated as a company to provide it with the flexibility and independence necessary to respond quickly and appropriately to vocational education and training needs emerging from the structural adjustment process.

The NTB is tripartite in composition but the States and Territories constitute a majority of the Board which reflects their constitutional responsibility for the provision of vocational education and training.

Training Services Australia (TSA)

TSA provides a range of public training courses and consultancy services designed to improve the utility of training in industry and the competency of those who provide it. TSA operates training centres and offers training consultancy services on a cost recovery basis in all capital cities excluding Darwin.

Workplace Literacy Program

A Workplace Literacy Program was announced in the Prime Minister's Industry Statement on 12 March 1991. The objective of the Program is to provide workers in targeted industries with literacy skills that are sufficient to enable them to remain in their current employment and to meet their future training needs.

Increased worker literacy skills aim to:

- contribute to increased enterprise-level productivity;
- improve workers' job security and career prospects; and
- improve safety in the workplace.

The Workplace Literacy Program and the English in the Workplace component of the Department of Immigration, Local Government and Ethnic Affairs' (DILGEA's) Adult Migrant English Program (AMEP) share similar goals. Consequently, the Ministers responsible for these programs have agreed that the Department of Employment, Education and Training (DEET) and DILGEA will cooperate in the management of a joint Workplace English Language and Literacy Program (WELLP). The program began operating on interim guidelines in January 1992.

Under WELLP, English as a Second Language (ESL) workers who require assistance will be assisted by the AMEP up to a level where they can join more general literacy classes. This will ensure that they receive specialist assistance when it is most needed. The joint Program will ensure a consistent delivery in workplaces, of vocationally relevant English language and literacy training to both ESL and English Speaking Background (ESB) workers.

Training will be provided by approved literacy training organisations including industry training boards, adult and community education bodies, State trade unions, State employer peak councils, DEET industry service centres, AMEP providers and Technical and Further Education (TAFE).

Special employment, education and income support

Employment Access Program

The Employment Access Program assists jobseekers who are disadvantaged in the labour market to gain access to and secure employment through the use of a range of training, wage subsidy and mobility measures which can be flexibly adapted to individual needs and local labour market requirements.

In February 1990 it was decided to expand the range of measures available under the Employment Access Program as part of a more active employment strategy.

There are four program components under the umbrella of the Employment Access Program:

- Access assistance;
- Job search assistance;
- Training assistance; and
- Employment assistance.

The array of available measures can be linked and adapted to suit client needs in their local labour market.

Access assistance

This component, known as Special Intervention, was introduced on 1 January 1991 as a measure to assist jobseekers who are unable to take advantage of available work or vocational training opportunities because they encounter a variety of personal barriers to employment.

Such barriers might include functional illiteracy, learning deficiencies, functional area skills gaps which prevent jobseekers changing to new areas of employment or adapting to new work practices or work organisation, or personal development needs.

Special Intervention assists the transition to work or vocational preparation by providing diagnostic assessment and remedial training for jobseekers facing specific, individual employment barriers.

Job Search Assistance

Job Search Assistance is designed to improve jobseekers' chances of finding work by developing their job search techniques, skills and knowledge.

From 1991-92, Job Search Assistance has three elements:

- Self Help Job Search materials including: a Job Search Kit and a Job Search VHS Video titled 'Working on it';
- Job Search Training Courses (JSTCs); and
- Job Clubs.

The Self Help Job Search materials aim to provide self help advice to CES clients during their initial job searching. Job Club members undertake intensive instruction in job search skills and job hunting over three weeks. Jstcs provide formal job search skills instruction for 22 hours over five days.

During 1990-91, 25,683 jobseekers participated in Job Search Assistance against a target of 26,954 (95.3% of target). Males comprised 49.5 per cent of participants and females 50.5 per cent.

Job Search Assistance achieved an overall positive outcome of 42.5 per cent. Job Clubs, however, continued to out-perform JSTCs, with an overall positive outcome of 48.9 per cent against 29.4 per cent for JSTCs.

Expenditure in 1990-91 was $10.262 million.

A related program, the Mobility Assistance Scheme, aims to contribute to the efficient and effective functioning of the labour market by giving jobseekers more equitable access to jobs which are not locally available, while also helping employers to obtain workers with appropriate skills. In 1990-91 the scheme had five components:

- *Fares Assistance.* This element provides assistance with public transport fares or, in areas without access to public transport, a petrol allowance for jobseekers to attend job interviews.
- *Post Placement Fares Assistance.* This measure provides a fares/petrol supplement for the long-term unemployed who are returning to full-time employment. This financial assistance eases the transition to work in the early stages of employment.
- *Relocation Assistance.* The primary aim of relocation assistance is to move unemployed jobseekers from their existing locations to take up long-term employment in situations where it is determined that local jobseekers will not be disadvantaged.
- *Jobsearch Relocation.* Under this element, financial support can be given to long-term unemployed jobseekers who are prepared to move if they gain employment, to enable them

to undertake short-term job search activity in high employment areas.

- *Immediate Minor Assistance.* This is a one-off payment of up to $100 that can be made to jobseekers who have a demonstrated work related financial need and a confirmed job offer. Eligibility for this payment depends on the client's needs, as assessed by the CES.

In 1990–91 the overall expenditure on the scheme was $4.5 million and some 1,575 applications for relocation assistance were approved.

Training assistance

JOBTRAIN aims to improve the employment prospects of long-term unemployed or otherwise especially disadvantaged jobseekers who have experienced difficulty in finding stable employment, by providing training assistance based on individual needs and opportunities in the local labour market.

Training is directed at entry level occupations and opportunities appropriate to the needs of disadvantaged jobseekers. The major emphasis is on vocational skills directly applicable in employment. Training provision must balance both local jobseeker needs and local employment opportunities and industry needs.

Course places under JOBTRAIN are obtained by either contracting for the provision of entire courses in the government, industry, private and community sectors, or purchasing existing course places from TAFE and other providers.

JOBTRAIN courses fall into three general categories:

- courses designed to lead to immediate job outcomes;
- courses designed to provide recognised skills and qualifications upgrading; and
- re-entry and preparatory courses linked to further education and training or other labour market program support.

Trainees approved for placement under JOBTRAIN may be eligible for income support under the provisions of Formal Training Assistance (FTA). FTA consists of:

- Job Search/Newstart Allowance subject to Department of Social Security standard eligibility provisions;
- a training supplement for trainees 21 years and over and sole parents; and
- a range of ancillary allowances providing for things such as compulsory course costs and assistance for trainees living away from home whilst in training.

Assistance with child care is available for sole parents (with children under 16 years) to undertake DEET approved formal training to improve their job prospects.

Limited assistance is also available for overseas qualified professionals to enable them to gain Australian recognition of their qualifications under JOBTRAIN — Bridging Training for Overseas Qualified Professionals, where this recognition would permit successful candidates to practise their professions in Australia.

Employment assistance

JOBSTART is a wage subsidy program which provides access to employment for jobseekers who have experienced long periods of unemployment or face other disadvantages in obtaining work. Employers in the private sector receive subsidy payments for a period of up to 26 weeks as an incentive for engaging and improving the employment prospects of these disadvantaged jobseekers. The rate of the subsidy payment varies according to age, length of unemployment and other special disadvantages.

The primary eligibility requirement is to have been unemployed for at least six months, away from full-time education, be currently registered with the CES and actively seeking work. This requirement is waived for especially disadvantaged labour market groups such as people with disabilities, jobseekers aged 50 or older, Aborigines, young people deemed 'at risk', homeless people and ex-offenders. However these groups must generally undertake a period of job search of four weeks before becoming eligible.

For employers to qualify for a JOBSTART subsidy they must be prepared to pay at least the award or appropriate wage for the job and fulfil other award conditions and should discuss the matter with the CES before employing the jobseeker.

Another program, Contracted Placement, aims to assist jobseekers who have been unemployed for a very long time and have been unable to use CES services effectively, or to benefit from labour market program assistance, to gain employment through the use of contracted agencies. The program will provide a fee for service for agencies contracted by the CES to place such jobseekers in permanent employment.

To be eligible for assistance under Contracted Placement, the jobseekers must be:

- aged 16 years to 64 years; and
- registered with the CES as unemployed for 36 months on a continuous basis.

A fee for service payment is made to a contracted agency to assess the jobseeker's needs, design and implement an action plan for the jobseeker, to provide relevant assistance, place the jobseeker in employment and assist the jobseeker to retain that employment.

Post Placement Support provides support, during the first few weeks or months of their being placed in a job, to the following categories of unemployed persons who seek assistance:

- clients who had been unemployed long term; and
- people with disabilities.

To be eligible for support under this program, a person must:

- have been registered with the CES as unemployed for one year or longer before being placed in a job;
- begin a permanent full or part-time job (i.e., a job of more than three months' duration); and
- experience employment-related difficulties and request assistance from the CES.

There are three forms of assistance available to clients who encounter employment-related problems and request assistance from the CES:

- CES staff may counsel the clients within the limits of their expertise and counselling skills, and consistent with duty of care obligations;
- the clients may be referred to other more appropriate agencies such as an Arbitration Inspectorate or the Ombudsman's Office; or
- the clients may be referred to a contracted external agency to provide post placement advice and contact services.

A program also exists to provide fully subsidised work experience placements in the private sector for jobseekers with disabilities who require higher levels of support.

To be eligible for assistance jobseekers must be clients on the Disability Support Pension who have been assessed as having work capacity and as being able to benefit from a work experience program.

Two forms of assistance are available:

- Wage subsidy full-time positions fully subsidised to a level of the relevant award wage or equivalent, up to a maximum of $3,600 per client.
- Additional employer costs reimbursement of up to $2,000 per placement may be made to an employer who incurs costs covering the lease/hire or modification of essential special equipment and/or the hire of specialist services required in the work place to enable a jobseeker with a disability to undertake employment.

The Jobs, Education and Training Program for Sole Parents (JET) aims to improve the financial circumstances of sole parents by facilitating their entry to the workforce through coordinated program assistance providing individual advice and access to employment, education, training and child care opportunities.

The JET program has two objectives:

- to increase the number and proportion of sole parents in employment; and
- to reduce social security outlays for sole parents.

JET is a voluntary program which provides sole parent pensioners with a consolidated range of assistance from the Department of Employment, Education and Training (DEET), the Department of Social Security (DSS) and the Department of Health, Housing and Community Services.

JET was introduced in late March 1989 and phased in nationally over two years with full implementation by November 1990.

All sole parent pensioners are eligible for JET, however, priority is given to those who have been on a pension for over 12 months, and whose children are over six years and those whose youngest child will reach the age of 16 within two years; and teenage sole parents.

JET advisers in DSS offices provide sole parents with individual assessments of job barriers and prospects, advice about relevant services, and refer them to the Commonwealth Employment Service (CES) for employment, education and training assistance. Extra places are available for sole parents who need to retain or improve their work skills through the JOBTRAIN, JOBSTART or Job Search Training Programs. For JET clients undertaking full-time education courses, extra funds are available for income support under AUSTUDY. In addition, full-time student pensioners receive an AUSTUDY education supplement of $30 per week.

Child care places are provided to sole parents not able to obtain permanent child care, through the Children's Services Program (by DCSH) during their training and education, and for a short period after they commence employment.

Aboriginal employment and training

The overall aims of the Aboriginal Employment Development Policy (AEDP) are to achieve equitable Aboriginal representation in employment and to contribute to the achievement of economic activity for Aboriginal communities by:

- increasing the level of permanent employment for Aboriginal people in the mainstream labour market; and
- actively generating employment through economic development within Aboriginal communities located in rural and remote areas.

AEDP is delivered through the Training for Aboriginals Program (TAP), which is structured to improve training and employment opportunities for Aboriginal people by:

- assisting private and public sector employers to develop recruitment and career development strategies for Aboriginal people in the mainstream labour market;
- negotiating with employers for training assistance linked with employment outcomes;
- recognising and supporting community-based employment and training, including training support to enterprises and community development projects; and
- providing assistance for vocational training in formal and short-term special courses.

During 1990-91, a total of 13,623 placements were approved under TAP, comprising 8,363 under training arrangements in mainstream labour markets, and 5,260 in Aboriginal communities.

The number assisted is expected to increase in 1991-92 as a result of additional funding on new policy initiatives in both Aboriginal communities and the public sector.

Community based employment and training strategies

SkillShare

The objective of the SkillShare program is to assist long-term unemployed people and other most disadvantaged unemployed people to obtain and retain employment or to proceed to further education or training through the provision of skills training, employment-related assistance (including personal support and referral) and enterprise activities by incorporated community-based organisations with a demonstrated capacity to deliver such services.

The target group for SkillShare is long-term unemployed people, particularly those unemployed for twelve months or more and other most disadvantaged unemployed people who do not have ready access to other employment, further education and training opportunities. Those deemed to be most disadvantaged include people with disabilities, people with literacy (including English language) difficulties affecting their employment prospects, Aboriginal people, people aged 50 to 64 years and sole-supporting parents.

Each project is managed by a community organisation known as a 'sponsor' which receives annual core funding to develop a range of activities linked to employment, training or education-related outcomes for the SkillShare target group. Sponsors are required to secure a contribution towards project operating costs from the local community equal to 20 per cent of SkillShare funding.

There are seven levels of core funding which range from $100,000 to $265,000 in 1992.

SkillShare has an important role in the Newstart strategy operating from 1 July 1991. The Newstart strategy places a strong emphasis on the principle of reciprocal obligation. The aim is to support people who are active in their efforts to obtain employment and to improve their employability. Further information on Newstart is contained in the chapter on Social Security and Welfare.

Consistent with the Government's commitment to use the skills and resources of the community sector to address the needs of the unemployed, SkillShare has been supplemented to give additional assistance to the long-term unemployed and other disadvantaged clients.

These services include:

- literacy and numeracy training;
- outreach funding;
- information technology services;
- extended hours of operation;
- training diversification; and
- enterprise activities.

Three broad types of activities and services are offered by SkillShare projects:

- *Structured Skills Training.* All projects are required to offer a minimum amount of off-the-job structured skills training.
- *Open Access Activities.* All projects are required to offer a range of services to the target group including, but not limited to, volunteer referral activities, job search training, motivational and personal development activities.
- *Enterprise Activities.* Projects are encouraged to develop enterprise activities to establish project-based businesses which may generate revenue for the project and provide training opportunities in a realistic commercial environment and income for the target group. Project enterprise activities may also assist unemployed people into self-employment. In 1990–91, $1.26 million was provided to 59 projects for enterprise activities and $1.8 million is available in 1992. This funding is complemented by an assessment process to ensure that commercial viability criteria are met. Training is also provided to ensure that project staff obtain the skills required in business planning and operations to maximise the chances for successful outcomes for project-based enterprise activities.

SkillShare sponsors establish a Project Advisory Committee (PAC) for each project which is representative of their community and, as such, includes representatives of the local TAFE institution and/or other relevant education providers.

It is estimated that approximately 100,000 persons will be assisted through an Australia-wide network of almost 400 projects, including ten Disability Access Support Units, in 1992.

Including Formal Training Allowance, the 1991-92 allocation for SkillShare is $119.7 million compared with an allocation of $97.2 million in 1991.

Disadvantaged Young People Services Program (DYP)

The objective of the program is to assist young people, currently unattracted to and uncompetitive in mainstream programs to secure and maintain employment, by providing assistance relevant to their particular needs.

The program funds community-based organisations to establish and operate 'mentor/broker' services for particularly disadvantaged young people who require personal support and follow-through assistance during a period of training and transition to employment. Disadvantaged young people include those in insecure accommodation and unstable domestic situations; with specific learning difficulties; from particular social and cultural groups (e.g., Aboriginal youth, young people of non-English speaking backgrounds); who have been unemployed long term; and who are leaving institutional care.

The DYP Program is funded as part of the Commonwealth Government's Youth Social Justice Strategy (YSJS). The allocation for DYP in 1991-92 is $2.4 million and up to 2,000 places are available. This compares with $2.2 million and 2,000 places in 1990-91.

Although not part of the SkillShare Program, the DYP Services have been shown to benefit from an association with SkillShare projects and in 1990–91, 31 of 41 DYP projects are conducted by SkillShare sponsors and co-located with their SkillShare projects. Funding allocations are made concurrently with SkillShare annual funding processes.

Self-Employment Assistance Program

The Self-Employment Assistance Program incorporates the New Enterprise Incentive Scheme (NEIS) and a new element — SelfStart. The Program is delivered jointly by the Commonwealth Government and either State/Territory Governments or Managing Agents.

NEIS provides assistance for unemployed people to set up self-employment ventures. The Scheme operates as a partnership between the Commonwealth Government and either State/Territory Governments or private sector and non-government organisations. It provides training and business advice prior to approval and mentor support after approval. The assistance package also includes income support and help in obtaining start-up capital.

The target group for NEIS is unemployed people registered with the Commonwealth Employment Service, in receipt of or dependent on unemployment benefit or certain other Social Security benefits or pensions, and aged between 18 years and the aged pension age. Proposed businesses must be new, independent, reputable and assessed as commercially viable and meeting an unsatisfied demand.

SelfStart is a more flexible arrangement targeting top participants already possessing business and technical skills required to establish a self-employment venture. Although all elements of the package are available, SelfStart participants require less training and mentor support given their relevant experience and expertise.

The Government has increased the number of self-employment places available under the program in 1991-92 to 2,000 compared with 1,133 placements achieved in 1990-91. The program has been allocated $22.3 million in 1991-92, up from expenditure of $12.2 million last year.

JOBSKILLS

JOBSKILLS is a new initiative which offers NewStart allowance recipients the opportunity to broaden their skills through a combination of work experience and training.

JOBSKILLS will provide a way for unemployed people to maintain and improve their skills during the current downturn to enable them to take advantage of the recovery.

JOBSKILLS placements will be for up to 26 weeks and will offer work experience combined with relevant on- and off-the-job training. Work experience placements will be organised through Jobskills Brokers and will be primarily within the local government and community sectors.

JOBSKILLS has been allocated $45.5 million for 1991-92 which will assist 4,500 long-term unemployed people.

Labour Adjustment Assistance Program

The Program contributes to the efficient and equitable functioning of the labour market by improving and adapting the skills/employment base in particular industries or regions undergoing structural change and assisting individuals affected by the change.

This sub-program provides a range of labour market measures under the auspices of the Office of Labour Market Adjustment (OLMA). The measures cover varied forms of assistance directed to particular industries undergoing structural change in recognition of the need for enhanced competitiveness, and to workers losing employment as a result of structural adjustment or specific Commonwealth Government decisions. The assistance is available in specific packages or 'mixes' according to the assessed needs of the workers in the particular industry or region. Assistance is also given to large enterprises and their employees facing retrenchments or the introduction of the short week due to the economic downturn.

Packages which operate under the Program can be divided into three main categories:

- industry packages usually in a national context to address major restructuring in an industry which results in significant labour shedding;
- regional packages to address the impact of structural change on a specific geographic labour market; and
- assistance to firms to increase skill levels and reduce retrenchments.

Industry packages operated in 1990–91 in the textiles, clothing and footwear and the passenger motor vehicle industries.

Regional labour markets are designated for assistance primarily on the basis of the level of structural unemployment in the region, particularly where levels are significantly higher than the average unemployment rate for the State.

Region-based assistance is provided in the form of a package of measures directed at labour market functions, individuals, or a mix of both.

Assistance to regional labour markets can utilise a mix of strategies such as:

- skills audits;
- employment development coordination committees;
- industry databases;
- development of innovative training responses; and
- funding support for organisations concerned with economic regeneration and business development at the local level.

Packages to operate in 1991–92 are:

- New South Wales — Northern Rivers; Hunter; Illawarra; Cobar;
- Victoria — Geelong;
- South Australia — Eyre Peninsula;
- Queensland — Wide Bay/Burnett; Goodna/Inala; Sunshine Coast; Logan City;
- Tasmania — A state wide regional package is in place; and
- Western Australia — Kalgoorlie.

Worsening conditions in the labour market during 1991 led to increasing unemployment and the movement by some enterprises to short working weeks. In recognition of the need to increase skill levels and prevent the wastage of skills caused when people remain unemployed or are employed in less skilled work, three new measures to provide additional assistance to firms were introduced on 1 July 1991. They are:

- The Training and Skills Program (TASK) which provides subsidised training for employees in firms facing retrenchments. It offers an alternative to retrenchment while helping employees improve and add to their skills. TASK is funded at $15 million for 1991-92.
- The Job Seeker Placements Relating to Skills Upgrading pilot which subsidises the development of training packages for firms wanting to improve staff skills.
- OLMA provides assistance to firms introducing new technology or improving methods of operation in OLMA designated regions.

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FOR MORE INFORMATION

The ABS has a far wider range of information on Australia than that contained in the *Year Book*. Information is available in the form of regular publications, electronic data services, special tables and from investigations of published and unpublished data.

For further information contact ABS Information Services at one of the addresses listed on the page facing the Introduction to the *Year Book*.

Chapter Eight

Social Security and Welfare

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COMMONWEALTH GOVERNMENT SOCIAL SECURITY SERVICES

On 1 July 1947, with the passage of the *Social Services Consolidation Act 1947*, all Acts providing social service benefits were amalgamated. The Act became the *Social Security Act 1947*, which was repealed and rewritten in plain English to become the *Social Security Act 1991* with effect from 1 July 1991.

The main social security payments provided by the Commonwealth under the Social Security Act as at June 1991, the amount paid in 1990–91, and the date on which each came into operation are shown below.

Type of payment	*Amount paid in 1990–91 $m*	*Date of operation*
The Retired		
Age Pension	9,013	1 July 1909
Wife's Pension	166	5 October 1972
Carer's Pension	29	1 November 1985
Pharmaceutical Allowance	n.a.	1 November 1990
Bereavement Allowance	n.a.	1 January 1990
People with Disabilities		
Invalid Pension	2,375	15 December 1910
Sheltered Employment Allowance	89	30 June 1967
Rehabilitation Allowance	30	1 March 1983
Mobility Allowance	8	1 April 1983
Wife's Pension	683	5 October 1972
Carer's Pension	37	1 November 1985
Pharmaceutical Allowance	n.a.	1 November 1990
Bereavement Allowance	n.a.	1 January 1990
The Unemployed and Sick		
Unemployment Benefit	4,493	1 July 1945
Job Search Allowance	68	1 January 1988
Sickness Benefit	651	1 July 1945
Special Benefit	262	1 July 1945
Families with children		
Family Allowance	1,894	1 July 1941
Family Allowance Supplement	573	17 December 1987
Sole Parent Pension	2,686	1 March 1989
Child Disability Allowance	72	15 November 1987
Double Orphan Pension	2	26 September 1973
Widowed Persons		
Widowed Persons Allowance	0.6	1 March 1989
Class 'B' Widow Pension	577	30 June 1942

Source: Department of Social Security.

An outline of the above payments follows, including certain changes scheduled to come into operation after 30 June 1991. Details of the respective rates of pensions, benefits and associated allowances, along with more specific eligibility criteria, are available in the Annual Report of the Department of Social Security.

Payments for the retired

Age pension is payable to men and women who have reached the ages of 65 and 60 respectively. Age pension is generally subject to residence qualifications, an income test and an assets test.

A wife's pension is payable to the wife of an age (or invalid) pensioner when she is not entitled, in her own right, to an age or invalid pension or rehabilitation allowance. There is no residence qualification, but an income and assets test does apply.

A carer's pension is payable to a person providing constant care and attention for a severely disabled age (or invalid) pensioner living in the same house or a neighbouring dwelling where the carer is not eligible for a pension in his or her own right.

Additional pension is payable, subject to the income test, for each dependent child under 16 years (at a higher rate for children aged 13–15) and dependent full-time students aged 16 to 24 years, who are not in receipt of a prescribed educational allowance (e.g., AUSTUDY). Widowed or other unmarried age (or invalid) pensioners with a dependent child may, in addition, receive mother's/guardian's allowance. Rent assistance, combined with the basic pension or benefit rate is assessed under the general pension or benefit income test. It is available to pensioners if they pay rent or pay for lodging, or board and lodging.

Pharmaceutical allowance is paid to all age (or invalid) pensioners and compensates them for expenditure on pharmaceuticals purchased under the Pharmaceutical Benefits Scheme.

Bereavement allowance is payable to eligible age (or invalid) pensioners, including carers, in respect of a deceased spouse equivalent to 14 weeks payment that would have been made to the spouse for that period. Allowances are available in lump sum form to assist with funeral and associated expenses. The estate of a deceased single pensioner is credited with one extra fortnightly instalment of pension following death. These arrangements supersede funeral benefit and special temporary allowance provisions.

AGE PENSIONERS, 30 JUNE

Age	*1989*	*1990*	*1991*
60–64 years	166,007	167,252	175,269
65–69 years	308,684	314,390	329,223
70–74 years	295,879	286,600	288,553
75 years+	563,740	572,226	582,804
Total	**1,334,310**	**1,340,468**	**1,375,849**
Number of wife's/ carer's pensioners	26,188	27,791	31,156
		— $'000 —	
Total payments during year(a)	7,516,110	8,182,453	9,207,544

(a) Includes allowances, rent assistance, and wife's pensions where applicable.
Source: Department of Social Security.

Payments for people with disabilities

Invalid pension is payable to persons aged over 16 years who are not of age pension age and who are at least 85 per cent permanently incapacitated for work, of which at least 50 per cent is directly caused by a physical or mental impairment of the person. It is also payable to persons who are permanently blind. Invalid pension is paid subject to residence qualifications, an income test and an assets test. Pensions paid to the permanently blind are not subject to income and asset tests.

Sheltered employment allowance is payable to disabled people who are employed in approved sheltered employment services and are otherwise qualified to receive an invalid pension or would become so qualified should they cease to be provided with sheltered employment. The allowance is subject to the same income and assets tests as apply to the invalid pension and is paid at the same rate. It is payable in the form of a supplement to the sheltered employee's wages.

Rehabilitation allowance is payable to people who receive assistance through the Commonwealth Rehabilitation Service, and who would otherwise be eligible to receive a social security payment. It is subject to the same income and assets tests as the invalid pension, and similar additional benefits are available.

Mobility allowance, which is means-test free, is payable to disabled people who are undertaking vocational training or gainful employment and who are unable to use public transport without substantial assistance because of their disability.

The following are also payable to people with disabilities — wife's pension, carer's pension, additional pension for dependent children, pharmaceutical and bereavement allowances. As these are payable to both retired and disabled people, details have been included only in the section, Payments to the Retired, of this chapter.

Disability Support Pension

The Disability Reform Package (DRP) was announced by the Government in the 1990–91 Budget. Included in the measures announced was the replacement of Invalid Pension, Sheltered Employment Allowance and Rehabilitation Allowance with Disability Support Pension. The major changes were effective from 12 November 1991 when all applicants for Disability Support Pension have their capacity for workforce participation assessed more rigorously. A minimum impairment threshold of 20 per cent is set to qualify for the pension. People meeting this requirement also have to be too incapacitated to work full time for full award wages in the foreseeable future. The new eligibility criteria are accompanied by opportunities for participation in rehabilitation and training programs.

INVALID PENSIONERS, 30 JUNE

Age	*1989*	*1990*	*1991*
16–19 years	7,863	7,808	7,700
20–39 years	62,274	63,874	68,110
40–59 years	161,244	164,261	173,807
60 years+	76,414	80,770	84,617
Total	**307,795**	**316,713**	**334,234**
Number of wife's/ carer's pensioners	94,321	95,839	99,548
		— $'000 —	
Total payments during year(a)	2,415,564	2,679,752	3,095,780

(a) Includes allowances, rent assistance, and wife's pensions where applicable.
Source: Department of Social Security.

At 30 June 1991, 93 sheltered employment services were paying the allowance to 9,886 disabled employees and 262 wives. Expenditure during the year 1990–91 was $89.0 million.

At 30 June 1991, there were 3,574 persons in receipt of rehabilitation allowances. Expenditure during the year 1990–91 was $30.0 million.

Payments for the unemployed and the sick

Until 30 June 1991, unemployment benefit was payable to unemployed persons aged between 18 and age pension age and job search allowance was payable to unemployed persons aged 16 to 17. (Changes introduced on 1 July 1991 are outlined below.)

To be eligible for unemployment benefit or job search allowance, a person must be unemployed and be capable and willing to undertake suitable paid work. An unemployment benefit or job search allowance recipient must also be registered with the Commonwealth Employment Service, must be taking reasonable steps to obtain work and must not be unemployed due to industrial action.

Sickness benefit is payable to persons aged 16 to age pension age who have suffered a loss of income because they are temporarily and totally incapacitated for work owing to illness or injury.

Recipients of job search allowance, unemployment benefit or sickness benefit must be permanent residents of Australia. Eligibility for unemployment and sickness benefits is subject to an income test and an assets test. In addition, job search allowance for those considered dependent on their parents is subject to tests on parental income and assets.

Special benefits may be granted to persons not qualified for any other benefit or pension but who are unable to earn a sufficient livelihood for themselves and their dependents and are in hardship. The rate at which special benefit is payable may not exceed the rate of unemployment or sickness benefit that would have been paid if the claimant was qualified to receive either of those benefits.

Recipients of unemployment, sickness or special benefit or job search allowance may also be eligible for supplementary payments including additional benefit for dependent children, guardians allowance, rent assistance or remote area allowance. Job search allowance and sickness or special benefit for under 18 year olds is payable at a higher rate to single young people who are homeless or otherwise have established independence of parental support.

UNEMPLOYMENT, SICKNESS AND SPECIAL BENEFITS, YEAR ENDED 30 JUNE

	1989	*1990*	*1991*
Unemployment beneficiaries (including job search allowees)(a)			
Number of new benefits granted	689,981	(b)725,000	(b)1,242,200
June average number on benefit	389,794	419,785	676,705
Average number on benefit at end of each week during year	429,350	385,014	535,947
Sickness beneficiaries			
Number of new benefits granted	110,369	(b)116,000	(b)121,300
June average number on benefit	79,001	79,195	71,397
Average number on benefit at end of each week during year	76,759	78,103	76,088
Special beneficiaries			
Number of new benefits granted	133,275	(b)170,000	(b)166,400
June average number on benefit	25,204	27,913	29,811
Average number on benefit at end of each week during year	23,929	26,463	30,021
		— $'000 —	
Amount paid during year(c)			
Unemployment and job search allowance(a)	3,135.640	3,067.796	4,561.353
Sickness benefit	552.970	611.167	650.612
Special benefit	178.310	214.767	261.748

(a) Job Search Allowance began on 1 January 1988. (b) Estimated. (c) Includes additional allowances.
Source: Department of Social Security.

Unemployment benefit was replaced from 1 July 1991 by a new two payment structure under the Newstart strategy. Job search allowance is now payable to those aged 18 years and over who have been unemployed for less than 12 months and to unemployed people aged 16 and 17. Newstart allowance is payable to those who have been unemployed for a year or more and who are aged 18 years and over.

Income support under the new structure is subject to the same income and assets tests and generally the same eligibility requirements as the old job search allowance and unemployment benefit. Added requirements are an enhanced activity test for all recipients and the Newstart activity agreement as a condition of receiving Newstart allowance.

Income support under the Newstart strategy is linked to active job search and participation in labour market programs designed to encourage an early return to the workforce. Clients who approach 12 months unemployment must apply separately for the payment of Newstart allowance if they still require income support. The payment of Newstart allowance depends on the recipient entering into an activity agreement with the CES. The activity agreement sets out a course of action designed to improve the recipient's job prospects and is tailored to the needs of the client and the local labour market.

The Disability Reform Package (DRP) announced by the Government in the 1990–91 Budget included the replacement of Sickness Benefit with Sickness Allowance which is normally limited to a 12 month period. There is discretion to extend the payment for a further 12 months in special circumstances. Generally, however, people still on sickness allowance at 12 months move to the Disability Support Pension or Job Search/Newstart allowance system. The measures took effect from 12 November 1991 and include improved assessment and referral procedures together with increased training and rehabilitation programs.

Payments for families with children

Family allowances

Family allowance is payable, subject to an income test, to a person with dependent children under 16 years or dependent full-time students aged 16 to 24 years who are not in receipt of a pension, benefit or allowance in their own right or prescribed educational allowance. An additional allowance, also subject to an income test, is payable in respect of multiple (three or more) births until the children turn six years. Payments are usually made to the mother and are indexed each January to maintain their real value. Approved charitable, religious or government institutions are paid family allowance for children in their care.

Generally, to be granted an allowance the person and the child must be in Australia and be Australian citizens, or have been given permission to remain in Australia permanently.

FAMILY ALLOWANCES, 30 JUNE 1991

Number of children and students in family							*Number of families*
	NSW/ACT(a)	*Vic.*	*Qld/NT*	*SA(b)*	*WA*	*Tas.*	*Aust.*
1	244,972	178,360	138,010	63,024	68,010	20,710	713,086
2	256,120	191,340	141,610	68,643	77,006	22,468	757,187
3	111,623	83,100	63,267	25,474	33,319	9,907	326,690
4	31,695	21,745	18,450	6,189	8,895	2,666	89,640
5	6,513	4,204	3,905	1,074	1,774	530	18,000
6	1,672	1,036	1,169	226	452	130	4,685
7	423	310	332	57	136	39	1,297
8	162	106	109	18	27	9	431
9	37	24	36	8	10	1	116
10 or more	17	19	21	1	5	1	64
Total families	**653,234**	**480,244**	**366,909**	**164,714**	**189,634**	**56,461**	**1,911,196**
No. of children in families	1,266,220	927,990	715,117	308,840	371,453	109,826	3,699,446
				— $'000 —			
Amount paid during year	650,112	474,566	366,668	157,325	189,171	56,117	1,893,958

(a) Excludes Broken Hill Regional Office. (b) Includes Broken Hill Regional Office.

Source: Department of Social Security.

Family allowance supplement

Family allowance supplement is paid subject to income and assets tests to low-income families with one or more children eligible for family allowance so long as they are not in receipt of any Commonwealth pension, benefit or allowance which provides additional payment for dependent children, and so long as the children of these families are not receiving means-tested Commonwealth payments. Levels of payment are age-related and are adjusted annually. Rent assistance is also available to recipients of family allowance supplement if they pay rent other than to a public housing authority. The number of families in receipt of family allowance supplement at 30 June 1991 was 187,872. The amount paid during the year 1990–91 was $572.7 million.

Sole parent pension

Sole parent pension amalgamates the former Class 'A' widow's pension and supporting parent's benefit, the two income support payments for people bringing up a child or children without a partner. All persons who were receiving either payment at 1 March 1989 were transferred to sole parent pension without any change to their eligibility.

Maximum rates are identical to those applying to age pension.

Sole parent pension may be paid to a person who has a 'qualifying child'. This is a child under 16 years or a child attracting child disability allowance, and who is:

- a natural or adopted child; and
- in the person's legal custody; or has been in the person's care and control for 12 months and likely to remain so permanently or indefinitely.

Sole parent pension may be paid to:

- a person who is not a member of a couple (including widowed, divorced, separated or unmarried persons);
- a person whose legal or de facto spouse has been in gaol for at least 14 days; and
- a person who is unable to live with his or her spouse or de facto spouse in the matrimonial home because of the spouse's or de facto spouse's long-term illness or infirmity.

To qualify for sole parent pension, clients are also expected to undertake action to obtain maintenance where it is reasonable to expect them to do so.

SOLE PARENT PENSIONERS, BY AGE AND TYPE, 30 JUNE

	1989	*1990*	*1991*
Age			
Under 20 years	9,564	10,245	10,026
20–29 years	86,347	89,653	92,989
30–39 years	96,234	100,393	109,849
40–49 years	40,652	42,152	46,373
50–59 years	6,427	6,197	6,271
60 years and over	245	246	212
Type of pensioner			
Females			
Unmarried mothers	46,590	47,845	49,623
Widows	10,978	9,940	9,412
Divorcees	26,842	22,817	20,208
Separated wife's	127,805	138,645	153,478
Separated de facto wife's	17,074	18,334	19,383
Males			
Widowers	793	805	864
Divorcees	1,020	953	1,102
Separated husbands	7,140	8,203	10,092
Separated de facto husbands	819	857	956
Other	408	487	602
Number of pensions	**239,469**	**248,886**	**265,720**
		— $'000 —	
Total payments during year(a)	2,131,986	2,334,211	2,686,319

(a) Includes rent assistance and allowances.
Source: Department of Social Security.

Jobs, Education and Training Program

In conjunction with the Departments of Employment, Education and Training, and Health, Housing and Community Services, the Department of Social Security administers the Jobs, Education and Training (JET) program. The JET program provides an integrated program of assistance for sole parents in the form of individual counselling, and access to training, education, job search assistance and child care support. Participation in the program is voluntary. Sole parent pensioners are eligible for an employment entry payment of $100. This was introduced in January 1991 and is available to sole parent pensioners who have been receiving the pension for more than 12 months and obtain permanent work earning over $301.60 per fortnight.

Child Support Scheme

Stage 1 of the Child Support Scheme commenced in June 1988 with the establishment of the Child Support Agency (CSA) in the Australian Taxation Office. Under Stage 1 of the Scheme, maintenance orders and agreements made, registered or approved by the courts can be enforced by the CSA. The Agency collects child support from liable parents and these payments are distributed to custodial parents on a monthly basis by the Department of Social Security.

Stage 2 of the Scheme, which began on 1 October 1989, replaced the system of court ordered child maintenance. Instead, the custodian can apply to the CSA which will assess the amount of child support payable using a formula set out in legislation. Stage 2 is prospective in that it applies only to people who separate or have a child born on or after 1 October 1989.

Child disability allowance

Child disability allowance may be paid to a parent or guardian of a child under 16 years or a dependent full-time student aged 16 to 24 years who has a physical, intellectual or psychiatric disability. The allowance is not payable if the student is receiving an invalid pension or sole parent's pension. The disabled child must be living in the family home and must need and receive substantially more daily care and attention over an extended period than needed by a child of the same age who does not have such a disability. The allowance is not subject to an income test, but a residence qualification similar to that for family allowance applies. The number of child disability allowances being paid at 30 June 1991 was 45,457. The total amount paid through these allowances during the year 1990–91 was $76.3 million.

Double orphan's pension

Double orphan's pension is payable free of means test to guardians of, or institutions caring for, children under 16 years, or dependent full-time students aged 16 to 24 years whose parents are both dead or one parent is dead and the other is missing, imprisoned or in an institution. The family allowance residence test applies. The pension may also be paid to persons caring for refugee children. The rate is indexed annually. Payments are made fortnightly with family allowance.

Provisions for special circumstances

Widowed person allowance

Widowed person allowance was introduced from 1 March 1989 and replaced Class 'C' widow's pension.

Widowed person allowance provides short-term assistance for persons whose partners die, and who are not eligible for sole parent pension. It allows a period of adjustment to make funeral arrangements, settle financial matters or to seek employment. The allowance may be granted to a person who, immediately before his or her spouse's death, was either legally married or living in a de facto relationship with that person.

There is no age restriction on the payment of widowed person's allowance but the allowance cannot be paid concurrently with another pension, benefit or allowance. Widowed persons with dependent children generally qualify for sole parent pension immediately.

The allowance is payable for up to 12 weeks after the date of the spouse's death, although payment can be extended if a widow is pregnant at the time of her spouse's death. Otherwise, the allowance is paid under the same conditions as other pensions.

Class 'B' widow pension

From July 1987, gradual phasing out of the Class 'B' widow pension began. From that date, no new grants were made except to women who were aged at least 50 at that date or at least 65 and received sole parent pension or one of its pre-runners which would have made them eligible before that date.

It was payable to a widow who was either at least 50 years of age or, after having reached the age of 45, ceased to receive a Class 'A' pension by reason of ceasing to have a qualifying child or student.

WIDOW PENSIONERS/WIDOWED PERSONS ALLOWANCE, BY TYPE AND AGE, JUNE

	1989	1990	1991
		— number —	
Class 'B' widow pensioners			
Aged			
Under 50 years	5,182	3,624	1,883
50–59 years	57,362	53,810	50,613
60 years+	20,982	21,291	21,628
Widowed person's allowance	116	222	315
Total	**83,642**	**78,947**	**74,439**
		— $'000 —	
Total payments during year(a)	535,200	553,743	577,256

(a) Includes payment to benevolent homes for maintenance of pensioners. It also includes rent assistance and allowances.
Source: Department of Social Security.

Fringe benefits

The Commonwealth Government provides eligible Department of Social Security clients with a range of fringe benefits. Eligibility for the various concessions is generally linked to possession of a Pensioner Health Benefits (PHB) card or, in the case of sickness beneficiaries, older long-term Newstart allowees and special beneficiaries, a Health Benefits (HB) card. The issue of a PHB card is subject to a special income and assets test. The benefits available to PHB card holders include:

- a range of concessional pharmaceuticals — all card holders pay $2.50 a script up to a 'safety net' of $130 per year;
- a telephone rental concession (to become telephone allowance from 1 July 1992) currently valued at $49 a year;
- assistance to blind pensioners with costs of communication material received through the mail;
- reduced fares for Commonwealth Government railway services;
- postal redirections concession; and
- free hearing aids and free assessments — from 1 November 1991, pensioners are charged an annual fee of $25 to cover the repair and maintenance of hearing aids and supply of batteries.

The issue of an HB card has no separate income and assets test. The benefits available to HB card holders are as for PHB card holders except that HB card holders are ineligible for the postal redirection service and telephone rental concessions are available only to older long-term unemployment benefit recipients.

State and Territory Governments, local government authorities and private organisations also provide certain fringe benefits. The most valuable of these are reductions in local government rates and in public transport concessions.

There were 1,911,315 pensioners at 30 June 1991 with PHB cards entitling them to Commonwealth pensioner fringe benefits.

Pensioners who are not eligible for a PHB card are entitled to a Pharmaceutical Benefits Concession (PBC) card providing concessional pharmaceuticals. Newstart allowees, special beneficiaries, FAS recipients and other low income people (subject to an income test) receive a Health Care (HC) card entitling them to a range of pharmaceuticals at a concessional rate and limited non-Commonwealth concessions.

Seniors cards are currently provided to aged people (usually over 60 years) in Queensland, Western Australia, Victoria, South Australia, New South Wales and the Australian Capital Territory. These cards provide a range of State and private business concessions which vary between States/Territories.

Pharmaceutical allowance

Pharmaceutical allowance is paid to all pensioners and to certain older long-term beneficiaries and allowees to compensate them for expenditure on pharmaceuticals purchased under the Pharmaceutical Benefits Scheme (PBS). The amount paid to a social security recipient over the course of the year is equal to the level of the PBS 'safety net' limit. The allowance is paid fortnightly but advance payments are available to those with high pharmaceutical usage and private income of less than $10 a week.

Financial Information Service (FIS) for pensioners

The FIS in the Department of Social Security gives information that will help current and future pensioners improve their standard of living in retirement by using their own money to best advantage. FIS has branches with specialist staff in 20 Social Security Area Offices and 27 Social Security Regional Offices throughout Australia. In addition, it provides a visiting service to regional centres, a telephone hotline and an interpreter service. FIS officers can provide advice on the social security, veteran's affairs and tax treatment of investments and information and discuss financial strategies and types of investments with clients and referral to appropriate financial counselling services. They do not recommend particular investments or arrange investments for clients. To 5 July 1991 FIS staff had been contacted by more than 135,000 clients and had conducted 24,600 client interviews.

International agreements and payment of pensions abroad

Age pensions, invalid pensions and certain categories of pensions for sole parents, widows and wives can be transferred abroad without restriction. Other pensions are either not payable abroad at all, or payable for 12 months only.

Australia has bilateral agreements with Italy, Canada, Malta and Spain which ensure full social security coverage for people who have lived or worked in those countries as well as Australia. Both countries in these agreements pay a part or full pension to a person, reflecting the length of time the person lived or worked there. Agreements have been signed with Ireland, The Netherlands and Portugal which will begin to operate in early to mid-1992.

Australia has older agreements with New Zealand and the United Kingdom which were originally based on a 'host-country pays' principle, but which are now in need of revision due to changes in the social security laws of all three countries.

Around 52 per cent of Australia's migrant population is now covered by an operating social security agreement.

COMMONWEALTH GOVERNMENT ASSISTANCE THROUGH WELFARE ORGANISATIONS

Supported Accommodation Assistance Program (SAAP)

SAAP is a Commonwealth/State funded, State administered program which aims to provide a range of supported accommodation and related support services to assist people who are either permanently homeless or temporarily homeless as a result of a crisis, to move to longer-term stable accommodation and eventually to assist them to achieve independent living. Examples include refuges, halfway houses and support services such as counselling, referral and advocacy services.

SAAP provides funds for equipment and recurrent costs for services. Capital housing funds for the program are available under the complementary Crisis Accommodation Program (CAP) within the Commonwealth State Housing Agreement.

Funding provided under SAAP in recent years is:

	Commonwealth ($m)	*States ($m)*	*Total ($m)*
1989–90	72.9	48.1	121.0
1990–91	81.0	50.5	131.5
1991–92	90.3	69.9	160.2

Source: Department of Housing, Health and Community Services.

Commonwealth capital funding provided under CAP in each of the above three years is $39.655 million.

Crisis Accommodation — Youth Social Justice Strategy

This program is part of a four-year comprehensive package of measures aimed at assisting disadvantaged young people who are homeless and in crisis by offering a range of support services including accommodation.

Capital housing funds for this initiative are available under the Crisis Accommodation Program (CAP) within the Commonwealth State Housing Agreement.

Commonwealth and State funding towards providing accommodation and support services for homeless youth under these initiatives are:

	Commonwealth ($m)	*States ($m)*	*Total ($m)*
1989–90	2.2	2.2	4.4
1990–91	4.4	4.7	9.1
1991–92	5.2	5.2	10.5

Source: Department of Housing, Health and Community Services.

In addition to the above amounts, the Commonwealth has made available a minimum of $7.15 million in each of the years in capital funding under CAP towards these initiatives.

Home and Community Care Program (HACC)

HACC is jointly funded by the Commonwealth Government and the State and Territory Governments. HACC funds organisations and community groups which provide basic maintenance and support services for the frail aged and people with disabilities to enable them to remain living at home. Support is also provided to the carers of these people.

The Program aims to enhance the independence, security and quality of life of frail aged and younger people with disabilities by avoiding their inappropriate admission to long-term residential care. It achieves this by facilitating and promoting the development of cost-effective community care alternatives which are appropriate and which can flexibly respond to individual needs.

Services funded under the Program include home help and personal care; home maintenance and modification; food services; community based care; transport services; community paramedical services; community nursing; assessment and referral; education and training for service providers and users; information and coordination.

Over 3,000 projects are funded throughout Australia, some providing a specific focus on the needs of younger people with disabilities, those with a non-English speaking background, Aboriginal and Torres Strait Islanders, those with dementia or the carers of the frail aged and younger people with disabilities.

HOME AND COMMUNITY CARE (HACC) EXPENDITURE(a), 1984–85 TO 1990–91
($ million)

Year	*Commonwealth*	*States/ Territories(b)*	*Total*
1984–85 (base)	78.1	74.2	152.3
1985–86	100.9	91.5	192.4
1986–87	135.4	104.0	239.4
1987–88	169.4	127.2	296.6
1988–89	205.1	145.0	350.1
1989–90	242.1	165.8	407.9
1990–91	278.9	188.3	467.2

(a) Includes unmatched money and planning and development but excludes running costs. (b) Estimated expenditure required for matching Commonwealth outlays and may vary to the actual cash expenditure due to the effect of recoupments in respect of previous years.

Source: Commonwealth Department of Health, Housing and Community Services.

Services for Families with Children Program

The goal of the Services for Families with Children Program is to assist families with dependent children to participate in the workforce and the general community by ensuring that child care is affordable for low and middle income families and by improving the supply and quality of child care.

The three main objectives of the program are to improve the supply, affordability and quality of child care, which are being achieved as follows.

Since 1983, the number of funded child care places has increased from 46,000 to over 166,000. It is estimated that by 1995–96 over 250,000 places will be funded under the program. These will comprise around 110,000 long day care places, 54,000 family day care places, 7,000 occasional care and other centre based care, and 80,000 outside school hours care places.

The Federal Government is encouraging employers to become more involved in the provision of child care services for their staff and has introduced a number of changes that should give a major boost to employer sponsored child care. As well as extending fee relief eligibility to employer services and providing additional Fringe Benefits Tax exemptions, the 1991–92 Budget allocated funding to establish Work and Child Care Units in Sydney, Melbourne and Brisbane to assist employers to develop work and child care policies and to establish child care services where appropriate.

An income related fee relief system ensures that quality care is affordable for low to middle income families. In 1990 the threshold for maximum fee relief was linked to the cut-off point for the Family Allowance Supplement, and eligibility was extended to middle income families by reducing the rates at which fee relief is withdrawn.

On 1 January 1991 fee relief subsidies were extended to families using approved commercial, employer sponsored and other non-profit centres not previously funded by the Commonwealth.

A new two-tiered system was introduced in all long day care, occasional care and family day care services on 1 January 1992, replacing the different systems which operated in each service type. Fee relief is paid at a higher level to all parents using child care for work related purposes, parents or children with disabilities and parents of children at risk, and at the lower level to parents using child care for non-work-related purposes.

A key objective of the Services for Families with Children Program is to provide quality children's services that are well managed, responsive to families' needs, culturally relevant and developmentally appropriate for children.

The Government is working with the industry to develop a national accreditation system for children's services and to provide training and resources to support service providers. Youth Activities Services for 11–16 year olds living in disadvantaged areas and Family Resource Centres, established to help local agencies improve the effectiveness and quality of services to families in high-need areas, are other major initiatives under this Program.

Emergency Relief Program

The Emergency Relief Program provides funds to community welfare agencies, to be used to provide emergency financial assistance to people in crisis. It is designed to assist the most needy in the community, including low income families and single parents, to deal with one-off crisis situations, helping to prevent hardship.

Some 700 agencies operating through approximately 1,000 outlets are funded under the Program. Assistance is usually provided as cash relief, purchase vouchers or payments to creditors to meet expenses such as electricity and rent arrears.

Commonwealth funding supplements the contributions of agencies from their own fundraising activities and funding provided by State and local governments. Commonwealth appropriations in recent years have been:

1989–90	$7,195,000
1990–91	$9,648,000
1991–92	$14,342,000

Source: Commonwealth Department of Housing, Health and Community Services.

People with disabilities

The *Disabilities Services Act 1986* was introduced to expand the opportunities for people with disabilities for integration into the Australian community. Under the Act, the Federal Government provides grants to a State or an eligible organisation in relation to the provision of services for people with disabilities.

The kinds of services eligible for funding include accommodation support, respite care, independent living training and a range of employment services including, competitive employment training and placement, supported employment and advocacy, information, recreation and print disability services.

In 1990–91 the Federal Government provided $279.1 million to organisations to provide services to people with disabilities.

A census undertaken in March 1991 of services provided the following information on the numbers of people with disabilities accessing services classified into the following broad categories:

Service description	*Number of services*	*Number of people with a disability*
Employment	479	23,231
Accommodation	684	13,629
Community participation	255	43,404
Other	169	13,935
Total	**1,587**	**94,199**

NOTE: A person with a disability may be accessing more than one service.

Source: Commonwealth Department of Housing, Health and Community Services.

The Department of Health, Housing and Community Services administers the Commonwealth Rehabilitation Service (CRS) which provides vocational and social rehabilitation services for working age people with disabilities. The major criterion for acceptance into a rehabilitation program is the expectation of significant gain towards vocational or independent living goals.

Services are provided from and arranged through a national network of some 140 regional locations. Programs may include:

- employment, vocational mobility and other independent living, training and education courses;
- diagnostic and assessment services, occupational therapy, physiotherapy, speech therapy and counselling services; and
- aids and appliances and home, vehicle and workplace modifications and associated accommodation and training allowances.

In 1990–91, 24,786 people received rehabilitation assistance from the CRS. Expenditure on rehabilitation services in 1990–91 was $83.5 million.

Hearing Services Program

The Hearing Services Program, through the National Acoustic Laboratories (NAL), fits approximately 60 per cent of all hearing aids in Australia.

Eligible people include holders of Pensioner Health Benefits cards and their dependents, all persons under 21 years of age, Veterans' Affairs clients, referred clients of the Commonwealth Rehabilitation Service and certain compensation claimants. Services are delivered through a network of 44 NAL Hearing Centres across Australia plus some 65 visiting centres in rural and remote areas.

The NAL Central Laboratory at Chatswood provides equipment and training and develops procedures to support the delivery of services through the Hearing Centres. It also conducts noise and audiological research, evaluates new devices and techniques, advises on measures to prevent hearing loss and reports on environmental and occupational noise problems.

Residential care for aged people

The aim of the Commonwealth Government's Aged Residential Care Program is to ensure that frail aged people who are assessed as being unable to live at home have access to residential support and care services appropriate to their needs. Support is provided by the Commonwealth for two main types of residential care and assistance — nursing homes and hostels. Nursing homes provide services for people who need continuous professional nursing and personal care, while hostels provide a wide range of personal care and accommodation services for less dependent aged people.

Two key objectives of the aged residential care program are to provide a range of accommodation and care services to meet the assessed needs of aged people, and to promote their quality of life.

COMMONWEALTH EXPENDITURE ON NURSING HOMES AND HOSTELS, 1990–91
($ million)

	NSW	*Vic.*	*Qld*	*WA*	*SA*	*Tas.*	*ACT*	*NT*	*Aust*
Nursing homes for aged (recurrent)	600.1	403.9	210.4	125.0	161.1	39.9	11.0	4.6	1,556.0
Hostels (recurrent)	58.2	44.2	40.6	16.4	24.0	4.4	1.5	0.6	189.9
Nursing homes and hostels (capital)	39.9	35.2	23.8	8.8	14.1	6.2	0.6	0.9	129.5

Source: Commonwealth Department of Housing, Health and Community Services.

APPROVED NURSING HOMES, HOSTELS AND BEDS AT 1 OCTOBER 1991

	NSW	*Vic.*	*Qld*	*WA*	*SA*	*Tas.*	*ACT*	*NT*	*Aust.*
Approved nursing homes and beds for aged									
Nursing homes	495	422	199	113	159	47	6	6	1,447
Beds	28,987	16,576	11,975	6,102	7,128	2,136	525	173	73,602
Approved hostels and beds									
Hostels	348	255	205	133	138	29	10	8	1,126
Beds	15,470	11,163	9,790	4,462	5,611	1,048	487	120	48,151

Source: Commonwealth Department of Housing, Health and Community Services.

Future directions

As part of the 1986 Nursing Homes and Hostels Review the Government decided to reduce the reliance on nursing homes for aged care through the adoption of a needs based approach to the planning of services for the frail aged including the introduction of target ratios for nursing homes and hostels. The Government's aim is to provide 95 places per 1,000 persons aged 70 years and over across all States and Territories. The long-term target distribution within the 95 places per 1,000 is 40 nursing home and 55 hostel places.

The rationale behind the increased emphasis on the provision of hostel services is that hostels will increasingly be equipped to cater for more dependent frail aged people. In the past, before the uniform geriatric assessment program was introduced, many people were inappropriately admitted to nursing homes. Since 1986, substantial increases to the level of personal care subsidy have created an incentive for hostels to cater for more dependent residents. Further, the 1991–92 Budget announced a restructure of the personal care subsidy to provide increased funding to hostels to care for those people who have the greater care needs.

Improved community care is also proving a desirable and effective way of assisting frail elderly people who choose to remain in their own home.

Hostel funding

To facilitate the equitable redistribution of resources to alternative, less institutionalised forms of residential care, hostel resources have been substantially enhanced through capital and recurrent funding.

The Commonwealth Government has committed substantial resources to the expansion of hostel services as an integral part of its residential aged care program. Since 1986, the Government has raised the level of subsidy available for residents of approved age care hostels. In particular, the Personal Care Subsidy of $22.25 per day from 1 May 1991 has more than doubled since 1986.

Major adjustments have also been made to the planning and funding mechanisms for hostels.

Unnecessary restrictions on organisations access to funds have been removed by allowing greater flexibility to raise funds themselves via borrowings and entry contributions from people with the capacity to contribute to the cost of their own accommodation.

Increasing the capacity of organisations to raise funds has allowed the Commonwealth to target capital subsidies to financially disadvantaged people and other disadvantaged groups more comprehensively. For example, significantly increased subsidies have been made available to provide accommodation for financially disadvantaged members of the community. Indeed, the Commonwealth now pays a capital grant of up to $53,900 for each hostel place which must be provided to a financially disadvantaged person.

The subsidy for general places varies depending on the proportion of financially disadvantaged people aged more than 70 in the area from which the hostel will draw its residents — the higher the percentage of financially disadvantaged residents, the higher the general place rate subsidy. This approach acknowledges that the greater the proportion of financially disadvantaged residents in a specific hostel population, the lower the number of people able to make an adequate entry contribution.

While the residential care program focuses mainly on long-term residential care, there are provisions under the program for assistance to those aged and disabled people who wish to stay in the community.

The Aged Care Reform Strategy Mid-Term Review, in seeking a more flexible approach to care services for the aged, recommended a lowering of the number of hostel places in return for a corresponding increase in home-based packages of care services, delivered through either residential or community-based care providers.

A number of pilot projects have illustrated the potential of such an approach in enabling those people with higher and more complex care needs and most at risk of needing residential care to remain in the community, through providing the necessary care services in the home. The Government has announced its commitment to develop Community Aged Care Services Packages as a service alternative in the aged care program.

In addition, short-term or respite care is available which not only allows carers a break from their responsibilities, but also provides support for frail aged people who are caring for themselves.

Domiciliary Nursing Care Benefit is available to assist people who choose to care, in their own homes, for chronically ill or infirm relatives who would otherwise be in nursing homes. Typically, these people are incapable of caring for themselves or being left unsupervised for any significant period and would require admission to a nursing home if home-care were not available. The basic criteria for the payment of the benefit are that the person must be aged 16 or over, require a nursing home level of care and be receiving adequate nursing care. The benefit is payable at the rate of $42 per fortnight.

VETERANS' AFFAIRS

The Repatriation Commission was established under the *Repatriation Act 1920*. With the repeal of that Act on 22 May 1986, the Commission has continued in existence under the *Veterans' Entitlements Act 1986*. At present, the Commission consists of three full-time members. The functions of the Commission are set out in section 180 of the Veterans' Entitlements Act and include:

- granting pensions, allowances and other benefits in accordance with the provisions of the Act;
- establishing, operating and maintaining hospitals and other institutions for the treatment of eligible persons;
- arranging the provision of treatment and other services for eligible persons;
- advising the Minister and providing him with information on matters relating to the Act;
- performing other functions conferred on the Commission by the Act or other Acts; and
- administering the Act subject to the control of the Minister.

The Department of Veterans' Affairs provides the administrative machinery through which the Commission operates. The central office of the Department is in Canberra. There is a branch office in the capital city of each State which is under the control of the Deputy Commissioner. Regional offices are located in

Newcastle, Wollongong, Canberra, Ballarat, Townsville and Darwin.

Repatriation benefits are provided under the Veterans' Entitlements Act in respect of service with the Australian Defence Forces in World War I, World War II, Korean and Malayan operations, Australian contingent of the British Commonwealth Far East Strategic Reserve, Vietnam and South-East Asia conflict and for service in the Regular Defence Forces on or after 7 December 1972. Certain civilians may also be eligible for benefits, as are Australian members of certain designated peacekeeping, observing and monitoring forces who had peacekeeping service overseas. Under the *Papua New Guinea (Members of the Forces Benefits) Act 1957*, indigenous inhabitants of Papua New Guinea who served in the Australian Forces in World War II and members of the Royal Papuan Constabulary and New Guinea Police Force who served in that conflict are eligible for compensatory type benefits. Australian mariners of World War II are eligible for compensation benefits under the *Seamen's War Pensions and Allowances Act 1940* and for income support benefits (service pension) subject to the conditions laid down in the Veterans' Entitlements Act. Members of other Commonwealth countries' forces and other allied veterans are not eligible for compensatory-type benefits in respect of their service, unless they were domiciled in Australia immediately before their enlistment. They may, however, qualify for income support payments such as the service pension.

The Annual Report of the Repatriation Commission provides more detailed information on Repatriation allowances, benefits and services.

VETERANS' AFFAIRS, TOTAL EXPENDITURE
($'000)

Class	*1985–86*	*1986–87*	*1987–88*	*1988–89*	*1989–90*	*1990–91*
Pensions, allowances and other benefits	2,587,404	2,766,858	3,111,508	3,180,025	3,393,270	3,674,453
Medical treatment(a)	681,172	778,111	511,986	526,932	575,053	662,717
Administration(b)	111,805	107,330	135,588	144,072	151,334	191,852
Works and maintenance	49,728	66,425	56,861	70,659	55,425	46,555
Total expenditure	**3,430,109**	**3,718,724**	**3,815,943**	**3,921,688**	**4,175,082**	**4,575,577**

(a) Excluding hospitals, including beneficiary transport. (b) Including property operating expenses.

NOTE: Expenditure figures exclude all operating expenses for the Repatriation General Hospitals, and all expenditure associated with the Defence Services Homes Corporation, the Australian War Memorial and Office of Australian War Graves. Total expenditure by the Veterans' Affairs Portfolio in 1989–90 was $5,217,105.

Source: Department of Veterans' Affairs.

Benefits Program

The principal objective of the Benefits Program is to compensate veterans and their dependants for the effects of war or defence service. Benefits such as pensions and allowances are administered under two sub-programs, the Compensation Sub-program and the Income Support Sub-program. Housing related benefits are administered under the Housing Assistance Sub-program.

Compensation Sub-program

The main benefits provided under this sub-program are the disability pension and the war/defence widow's/widower's pension.

The disability pension is a compensatory payment for incapacity due to eligible war, defence or peacekeeping service. It is paid at a general rate between 10 per cent and 100 per cent, depending on the degree of war-caused or defence-caused incapacity. Higher rates of pension (intermediate rate and special rate) are payable for those incapacitated to 70 per cent of the general rate where the incapacity alone affects their capacity for work. The intermediate rate is payable where the person is unable to work more than 20 hours a week and the special rate is payable where the person is unable to work more than eight hours a week.

An Extreme Disablement Adjustment, equal to 150 per cent of the general rate, is payable to severely disabled veterans who are 65 years of age or over.

The war/defence widow's/widower's pension is payable to the widow or widower of a veteran:

- whose death has been accepted as war-caused or defence-caused; or
- who was receiving or entitled to receive a special rate disability pension at the time of his or her death.

Orphan's pension is payable to the children of these veterans.

NUMBER OF DISABILITY AND WAR WIDOW'S PENSIONS

Recipient	*30 June 1990*	*30 June 1991*	*Variation per cent*
Veterans	161,546	159,579	–1.3
Wife's and wife widows	104,109	99,269	–4.7
Children	10,171	8,871	–12.8
War widows	76,471	78,140	+2.2
Orphans	633	601	–5.1
Other dependants	1,152	1,091	–5.3
Total	**354,082**	**347,551**	**–1.9**

Source: Department of Veterans' Affairs.

NUMBER OF DISABILITY PENSIONS FOR INCAPACITATED VETERANS, 30 JUNE 1991

Pension	*World War I*	*World War II(a)*	*Korea, Malaya and FESR(b)*	*Special Overseas Service*	*Peace-time forces*	*Miscel-laneous*	*Total*
General Rate — from 10% to 100% assessed disability	408	110,630	3,752	8,742	13,742	99	137,373
Intermediate Rate	2	807	29	58	47	2	945
Special Rate (T & PI or equivalent)	99	17,521	727	1,015	525	10	19,897
Extreme Disablement Adjustment	6	1,346	7	1	2	2	1,364
Total	**515**	**130,304**	**4,515**	**9,816**	**14,316**	**113**	**159,579**

(a) Includes Interim Forces. (b) Far East Strategic Reserve.

Source: Department of Veterans' Affairs.

DISABILITY AND WAR WIDOWS PENSIONS: NUMBER AND EXPENDITURE

	Number of disability pensions in force at 30 June				
Year	*Incapacitated veterans*	*Dependants of incapacitated veterans*	*Dependants of deceased veterans*	*Total*	*Annual expenditure(a) to 30 June ($'000)*
1986	169,109	170,589	70,044	409,742	950,040
1987	169,257	132,971	72,884	375,112	991,744
1988	166,830	125,821	75,029	367,680	1,091,764
1989	163,660	120,325	76,360	360,345	1,123,624
1990	161,546	114,625	77,911	354,082	1,219,647
1991	159,579	108,478	79,494	347,551	1,340,420

(a) Includes associated allowances.

Source: Department of Veterans' Affairs.

A number of specific need allowances are available to veterans for their incapacity. They include attendant allowance, specific disability (section 27) allowance, clothing allowance, recreation transport allowance, vehicle assistance scheme benefits, temporary incapacity allowance and loss of earnings allowance. Decoration allowance is also available. Various payments intended to assist with funeral and other bereavement expenses are also available.

SPECIFIC NEED ALLOWANCES

	Number of recipients at 30 June		
Benefit	*1989*	*1990*	*1991*
Attendant allowance	964	1,017	999
Section 27 (items 1–6)	61	64	58
Section 27 (items 7–15)	1,230	1,244	1,229
Clothing allowance	2,398	2,323	2,245
Recreation transport allowance	3,171	3,211	3,138
Decoration allowance	1,317	1,321	1,326
Vehicle assistance scheme	51	95	67

Source: Department of Veterans' Affairs.

The Veterans' Children Education Scheme provides assistance with education and training for the children of special rate disability pensioners and certain other incapacitated veterans and deceased veterans whose death has been accepted as war-caused or defence-caused or who were receiving special rate disability pension or a section 27 allowance (items 1–6) at the time of death.

VETERANS' CHILDREN EDUCATION SCHEME, EXPENDITURE
($'000)

	Cost of education of beneficiaries						
Year	*NSW(a)*	*Vic.*	*Qld*	*SA(b)*	*WA*	*Tas.*	*Aust.*
1985–86	1,344.8	929.5	731.1	303.1	270.4	162.7	3,741.6
1986–87	1,674.0	1,093.0	951.4	324.1	367.0	221.3	4,630.8
1987–88	1,754.0	1,233.1	1,166.0	387.6	349.2	267.2	5,157.1
1988–89	1,568.9	1,017.6	1,061.4	333.8	359.3	259.2	4,600.4
1989–90	1,492.2	975.3	971.6	293.6	361.9	268.8	4,363.4
1990–91	1,470.3	975.6	1,015.4	459.6	290.4	308.7	4,520.0

(a) Includes Australian Capital Territory. (b) Includes Northern Territory.
Source: Department of Veterans' Affairs.

VETERANS' CHILDREN EDUCATION SCHEME, NUMBER RECEIVING BENEFITS AT 30 JUNE 1991

Type of training	*NSW(a)*	*Vic.*	*Qld*	*SA(b)*	*WA*	*Tas.*	*Aust.*
At school							
Primary(c)	108	71	132	33	80	36	460
Secondary	325	213	334	88	169	102	1,231
Total at school	*433*	*284*	*466*	*121*	*249*	*138*	*1,691*
Tertiary professional	134	99	78	38	29	21	399
Technical	20	19	13	—	16	5	73
Total	**587**	**402**	**557**	**159**	**294**	**164**	**2,163**

(a) Includes Australian Capital Territory. (b) Includes Northern Territory. (c) Not in receipt of an education allowance.
Source: Department of Veterans' Affairs.

Income-support Sub-program

The main benefit paid under this sub-program is the service pension. This is an income and assets tested pension similar to the age and invalid pensions payable by the Department of Social Security. The pension is payable to veterans with qualifying service at age 60 (males) or 55 (females). Veterans with qualifying service may be paid the pension at any age if they are permanently incapacitated for work. Qualifying service generally means service in an area and at a time when danger from hostile enemy forces was incurred by the veteran.

Veterans of other Commonwealth and allied countries may also qualify for the service pension for service in wars or war-like conflicts in which Australia has engaged. Veterans of Commonwealth forces must have served outside the country of enlistment or be entitled to the award of a campaign medal for service within that country. Allied veterans must have served in formally raised forces. The veteran must be an Australian resident with at least ten years residency. Service pension is also available to Australians, other Commonwealth and allied mariners of World War II.

Service pensioners who satisfy a separate income and assets test may be eligible for 'fringe benefits', provided by the Commonwealth Government, which include medical and hospital treatment, pharmaceutical benefits and telephone rental concessions.

A number of supplementary benefits are also available under the sub-program. These include:

- rent assistance;
- additional pension in respect of dependent children;
- remote locality allowance;
- carer's pension;
- guardian allowance;
- bereavement payment; and
- pharmaceutical allowance.

The following tables show the total number of pensions in force, as at 30 June 1991, and the annual expenditure.

NUMBER OF SERVICE PENSIONS, 30 JUNE 1991

Class	*World War I*	*World War II*	*Korea, Malaya and FESR(a)*	*Special Overseas Service*	*British Common-wealth*	*Allied Forces*	*Miscel-laneous*	*Total*
Veterans								
Old age	770	175,002	3,277	658	26,797	4,062	2,403	212,969
Permanently incapacitated	—	460	1,900	1,978	377	138	126	4,979
Tuberculosis(b)	2	433	8	1	6	—	—	450
Total	*772*	*175,895*	*5,185*	*2,637*	*27,180*	*4,200*	*2,529*	*218,398*
Wife's and widows	642	127,491	3,559	1,841	20,858	3,334	1,786	159,511
Total	**1,414**	**303,386**	**8,744**	**4,478**	**48,038**	**7,534**	**4,315**	**377,909**

(a) Far East Strategic Reserve.(b) Eligibility on these grounds ceased on 2 November 1978.

Source: Department of Veterans' Affairs.

SERVICE PENSIONS: NUMBER AND EXPENDITURE

	Pensions in force as at 30 June			*Annual expend-iture(a) ($'000)*
	Veterans	*Wife's and widows*	*Total*	
1986	233,751	169,801	403,552	1,616,987
1987	234,209	170,585	404,794	1,745,888
1988	232,711	170,153	402,864	2,011,205
1989	229,097	167,342	396,439	2,048,138
1990	223,164	163,184	386,348	2,164,449
1991	218,398	159,511	377,909	2,325,077

(a) Includes associated allowances.

Source: Department of Veterans' Affairs.

Treatment for veterans and dependants of veterans

Treatment is provided for all disabilities which have been accepted as service-related, and for pulmonary tuberculosis and cancer not related to service. In addition, and subject to certain conditions, treatment in Australia is provided for most non-service-related disabilities for: incapacitated veterans receiving disability pensions at or above the maximum (100%) general rate; World War II veterans receiving both service pension at any rate and disability pension at the 50 per cent rate or higher; veterans or nurses who served in World War I; veterans who were detained by the enemy; war widows and certain other dependants of deceased male veterans whose deaths have been accepted as service related, and of deceased Special Rate pensioners; certain service pensioners; returned servicewomen of World War II; and mariners who received both a service pension and a disability pension at or above 50 per cent of the general rate, and all Australian mariners of World War I.

Special emphasis is given to caring for the aged, aimed at limiting the dependence of veterans and war widows on nursing home care and encouraging the alternative of home care.

The Department has a Joint Ventures Scheme to assist veterans' organisations to help veterans and their dependants live at home for as long as possible. To the end of the year 1991–92, the Department had helped to establish over 390 projects at a cost of about $2.75 million.

Treatment is provided at six Repatriation General Hospitals (RGHs — one in each State); three Repatriation Auxiliary Hospitals (New South Wales, Victoria and Queensland); Anzac Hostel in Victoria; Repatriation Artificial Limb and Appliance Centres (RALACs) and the Vietnam Veterans' Counselling Service (VVCS).

In addition to the Repatriation facilities, and subject to certain criteria, entitled persons are treated in State and private metropolitan and country hospitals and nursing homes at departmental expense. During 1990–91 the estimated paid bed days for entitled persons in public hospitals was 403,962 and for private hospitals, 212,488.

Under arrangements with State Governments, entitled persons requiring custodial, psychiatric care for a service related disability are treated at departmental expense in State psychiatric hospitals.

General medical practitioner services are provided through the Local Medical Officer Scheme (LMO). There were 16,571 Repatriation LMOs in the scheme as at 1 June 1991. During 1990–91 LMO consultations totalled 3,134,410.

Entitled persons may also be provided with dental treatment through the Local Dental Officer (LDO) Scheme which comprised 5,889 LDOs as at 1 June 1991. In addition, the services of approximately 614 dental prosthetists were also available to eligible beneficiaries. During 1990–91 532,402 dental services were undertaken.

Optometrical services, including the provision of spectacles; the services of allied health professionals and a comprehensive range of aids and appliances may be provided to entitled persons.

In addition, entitled persons may be provided with pharmaceuticals and dressings through the Repatriation Pharmaceutical Benefits Scheme.

Repatriation General Hospitals

The Repatriation General Hospitals (RGHs) are teaching hospitals providing short-term treatment during an acute episode of illness. They also provide outpatient services and assessment of need for domiciliary and other community support facilities through Aged and Extended Care Departments (AECDs). During 1990–91 there were 980,800 outpatient occasions of service at the RGHs.

The RGHs contribute to State health care services by treating members of the general community where capacity exists after the needs of entitled persons have been met. Limits on the level of available beds for community patients are determined by the Repatriation Commission.

The following table gives details of in-patients (including community patients) treated at RGHs. The figures shown refer to treatment episodes, e.g., a person who is admitted to hospital twice during a year is counted twice.

REPATRIATION GENERAL HOSPITALS: IN-PATIENTS TREATED, 1990–91

	NSW	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*Aust.*
Admissions	35,225	22,407	14,650	10,303	14,320	3,067	99,972
Separations	35,212	22,394	14,636	10,311	14,334	3,058	99,945
Daily average occupied beds	611	411	354	229	260	66	1,931

Source: Department of Veterans' Affairs.

Repatriation Auxiliary Hospitals

The Repatriation Auxiliary Hospitals (RAHs) provide slow stream rehabilitation of patients; maintenance care of patients awaiting nursing home admissions and respite care for a limited number of patients. Community patients are admitted to spare capacity in some RAHs subject to maximum limits determined by the Repatriation Commission.

The following table gives details of in-patients (including community patients) treated at RAHs. The figures shown refer to treatment episodes, e.g., a person who is admitted to hospital twice during a year is counted twice.

REPATRIATION AUXILIARY HOSPITALS, IN-PATIENTS TREATED, 1990–91

	NSW	*Vic.*	*Qld*	*Total*
Admissions	1,845	980	397	3,222
Separations	1,785	956	393	3,134
Daily average occupied beds	150	85	59	294

Source: Department of Veterans' Affairs.

Anzac Hostel provides minimal nursing supervision in a residential setting to eligible persons. The daily average occupied beds figure for 1990–91 was 29.

Artificial limbs and appliances

Entitled veterans and war widows receive free artificial limbs and appliances and surgical footwear through the Repatriation Artificial Limb and Appliance Centre (RALAC).

During 1990–91, the Free Limbs Scheme was replaced by the Artificial Limbs Scheme (ALS) which introduced charges for non-pensioners and minimum limb life expectancies. This has had the effect of reducing demand by around 15 per cent. The ALS provides limbs to Australian residents who need them. Limbs can be provided through the RALACs or commercial limb manufacturers. Amputees can access these manufacturers through some 83 amputee prescribing clinics Australia wide.

RALACs are located in each State capital with sub-centres in Darwin, Townsville, Canberra, Newcastle and Albury. A mobile workshop operates in Victoria to provide services to remote locations. The Central Development Unit is located in Melbourne, and engages in research, development and evaluation in prosthetics and orthotics.

The following table gives details of production by all centres and commercial firms as a result of orders placed by the Department.

RALACs: PRODUCTION, 1990–91
(numbers)(a)

	Entitled Veterans	*Community patients*	*Total*
Artificial arms	11	107	118
Artificial legs	396	1,577	1,973
Appliances	905	387	1,292
Artificial limb repairs	1,687	6,913	8,600
Appliance repairs	991	145	1,136
Footwear(b)	5,248	335	5,583
Footwear repairs	10,119	782	10,901

(a) Figures do not include limbs (131 arms, 2,217 legs) and limb repairs (6,750) provided by commercial firms as a result of orders placed by the Department. (b) Does not include adaptive footwear (1,242 pairs).

Source: Department of Veterans' Affairs.

Total artificial limbs for ALS clients was 4,032.

Vietnam Veterans Counselling Service

The Vietnam Veterans Counselling Service (VVCS) has centres in Canberra, Harris Park (Sydney), South Melbourne, Brisbane, Townsville, Adelaide, Perth, Hobart and Darwin. Outposted centres have been established in Launceston and Albury/Wodonga. The service is intended to provide counselling to veterans and their families, as well as working with the ex-service community to promote acceptance of veterans, particularly Vietnam veterans, by the community.

The service is staffed by psychologists and social workers with detailed knowledge and experience about Vietnam service and its impact on veterans and their families, especially the impact of post-traumatic stress.

A Country Outreach Program was introduced in 1988 to extend the VVCS service to rural areas and access to counselling has been improved through provision of a 008 toll free telephone service. A 24 hour Veterans' Line telephone counselling service operates in all States except Victoria and the Northern Territory to assist veterans and their families who are in crisis.

The following table shows the increase in usage of the service over the last three financial years.

VIETNAM VETERANS COUNSELLING SERVICE, 1988–89 TO 1990–91

	1988–89	*1989–90*	*1990–91*
Numbers of counselling sessions	26,633	29,464	34,323
Including:			
Face to face	14,048	16,057	14,066
Telephone (including 008)	10,152	10,818	13,108
Group	296	2,240	332
Country outreach	n.a.	n.a.	6,817

Source: Department of Veterans' Affairs.

The Office of Australian War Graves

The Office of Australian War Graves has two main functions. Its major area of responsibility by sheer volume of work is the implementation of government policy for the perpetual commemoration of eligible Australian veterans whose post-war deaths are related to their war service. The authority for this program was established by a War Cabinet decision on 10 March 1922 and re-confirmed in several subsequent decisions.

It also maintains on behalf of the Commonwealth War Graves Commission, War Cemeteries and other commemorations in Australia, Papua New Guinea, Solomon Islands (Guadalcanal) and Norfolk Island. This responsibility is covered by a formal agreement between Australia and the Commonwealth War Graves Commission which was signed on 1 January 1975. Under a separate arrangement with the Commonwealth War Graves Commission the Office of Australian War Graves also maintains the Ambon War Cemetery in Indonesia.

The *War Graves Act 1980* created the statutory position of Director of War Graves. The Director is responsible under the Secretary of the Department of Veterans' Affairs for administering all matters associated with the Office of Australian War Graves' commemorative functions.

The Office maintains 19,520 war graves in 76 war cemeteries and 900 civil cemeteries. It also maintains 166,000 post-war commemorations scattered throughout 1,500 civil cemeteries. In 1989–90 it commemorated 10,000 veterans who died of war-related causes.

The Office provides an information service to those wishing to visit any of the 75,000 Australian war dead buried in some 70 countries overseas.

It holds records relating to the Commonwealth dead of World War II, the Australian dead of World War I and of the post-World War II conflicts.

Full details of the operations of the Office of Australian War Graves are contained in its Annual Report.

HOUSEHOLD INCOME AND EXPENDITURE

Household expenditure

The 1988–89 Household Expenditure Survey was the fourth major survey of its kind undertaken by the Australian Bureau of

Statistics. It was conducted continuously over the twelve month period July 1988 to June 1989. Household expenditure surveys are designed to find out how the expenditure patterns of private households vary according to income level and other characteristics such as household size, composition, location and principal source of income. Information gathered from household expenditure surveys is primarily for use in reviewing the weighting pattern of the Consumer Price Index (CPI) which is used universally as a measure of change in the cost of living.

In 1988–89, average weekly household expenditure on commodities and services in Australia was $502.71. Household expenditure varied considerably across the States and Territories with the highest weekly expenditure being recorded in the two Territories at $587.13 for households in the Australian Capital Territory and $529.19 in the Northern Territory. Households in Tasmania had the lowest average weekly expenditure at $424.92. These differences in household expenditure reflect to some extent the differences in average weekly household income across the States and Territories. Households in the Australian Capital Territory and the Northern Territory had the highest average weekly incomes at $811.85 and $733.65 respectively. Households in Tasmania had the lowest average weekly household income at $541.32. These differences in household income are in turn related to such characteristics as the proportion of household income derived from earnings or government cash benefits, the average number of employed persons per household and the average age of the household head.

At the national level, average weekly household expenditure (*see* table below) on food and non-alcoholic beverages ($95.83 or 19.1% of total expenditure on commodities and services), on transport ($76.13 or 15.1%) and on current housing costs (for selected dwellings) ($71.80 or 14.3%) accounts for 48.5 per cent of total expenditure. Much less significant is the expenditure on personal care ($9.95 or 2.0%) and on tobacco ($6.89 or 1.4%).

HOUSEHOLD EXPENDITURE AND CHARACTERISTICS, JULY 1988 TO JUNE 1989

	NSW	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT(a)*	*ACT*	*Aust.*
AVERAGE WEEKLY HOUSEHOLD EXPENDITURE ($)*(b)*									
Broad expenditure group(c)									
Commodity or service									
Current housing costs (selected dwelling)	79.10	72.17	64.98	62.75	65.26	53.79	86.30	100.16	71.80
Fuel and power	11.86	15.00	11.02	13.04	13.18	13.95	13.17	15.26	12.87
Food and non-alcoholic beverages	98.53	101.65	86.81	85.27	97.04	88.44	101.01	106.57	95.83
Alcoholic beverages	16.82	16.12	18.02	15.67	18.56	12.67	30.48	18.80	16.90
Tobacco	6.96	7.09	6.31	6.66	7.18	7.28	9.26	6.61	6.89
Clothing and footwear	33.10	33.22	26.76	25.88	29.31	23.94	24.34	33.50	30.73
Household furnishings and equipment	39.79	41.55	29.70	28.74	42.53	31.20	30.43	34.86	37.37
Household services and operation	24.88	25.35	22.22	20.65	24.48	20.83	32.71	28.16	24.11
Medical care and health expenses	23.12	22.84	19.44	20.28	20.10	18.26	16.21	21.91	21.68
Transport	78.05	79.14	69.98	69.63	79.56	66.10	74.98	89.57	76.13
Recreation	62.93	65.83	46.77	54.13	57.07	48.95	66.37	74.49	59.37
Personal care	10.59	10.08	8.32	9.55	10.97	9.27	9.34	9.92	9.95
Miscellaneous commodities and services	37.06	44.30	33.75	35.88	46.81	30.24	34.60	47.33	39.08
Total commodities or service expenditure	*522.80*	*534.36*	*444.08*	*448.13*	*512.05*	*424.92*	*529.19*	*587.13*	*502.71*
Selected other payments									
Income tax	136.04	138.64	104.85	100.51	126.09	97.91	152.46	187.14	127.02
Mortgage payment—principal (selected dwelling)	7.67	6.14	6.93	5.40	8.57	5.92	7.81	10.33	7.01
Other capital housing costs	36.12	12.30	4.07	17.65	21.48	–2.24	9.59	15.94	19.91
Superannuation and life insurance	15.84	18.16	15.59	15.15	17.87	17.84	24.71	30.78	16.86

For footnotes *see* end of table.

HOUSEHOLD EXPENDITURE AND CHARACTERISTICS, JULY 1988 TO JUNE 1989 — *continued*

	NSW	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT(a)*	*ACT*	*Aust.*
HOUSEHOLD CHARACTERISTICS									
Average weekly household income ($)(d)	*651.95*	*681.43*	*568.90*	*557.80*	*646.74*	*541.32*	*733.65*	*811.85*	*636.05*
Proportion (%) of total income being									
Wages and salaries	72.3	73.2	70.1	72.8	70.4	68.8	81.1	83.8	72.3
Own business	8.8	10.1	8.6	6.0	12.5	8.8	9.0	5.3	9.2
Government pensions and benefits	10.1	8.3	12.3	12.5	10.1	13.4	6.4	4.6	10.1
Other	8.8	8.4	9.0	8.7	7.0	9.0	3.5	6.3	8.5
Total	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*
Average age of reference person	*48*	*47*	*47*	*48*	*45*	*48*	*41*	*42*	*47*
Average number of persons in the household									
Under 18 years	0.84	0.81	0.80	0.66	0.96	0.79	0.92	0.94	0.82
18 to 64 years	1.68	1.75	1.62	1.60	1.75	1.65	1.71	1.86	1.69
65 years and over	0.29	0.26	0.28	0.31	0.22	0.29	0.08	0.11	0.27
Total	*2.81*	*2.82*	*2.70*	*2.57*	*2.93*	*2.73*	*2.71*	*2.91*	*2.78*
Proportion (%) of households with nature of housing occupancy being									
Owned outright	42.7	46.1	44.5	42.1	36.3	45.8	15.7	15.9	42.8
Being bought	27.4	32.2	26.5	31.2	34.5	32.3	30.1	48.4	29.9
Renting—government	6.2	4.1	3.4	11.0	10.1	8.0	24.9	17.7	6.3
Renting—private	20.7	15.4	22.6	14.2	16.1	11.3	26.0	17.1	18.4
Occupied rent free	3.0	2.2	3.0	1.5	3.0	2.6	3.3	1.0	2.6
Total	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*
Average number of earners in household	*1.2*	*1.4*	*1.2*	*1.2*	*1.3*	*1.2*	*1.4*	*1.5*	*1.3*
Proportion (%) of households with family composition of the household being									
Married couple:									
only	22.6	21.7	24.1	28.6	21.1	29.4	15.6	21.2	23.2
with dependent children only	29.6	28.2	27.8	23.0	30.1	26.6	32.5	35.5	28.4
other*(e)*	12.6	15.7	10.3	12.9	15.0	12.2	6.9	8.2	13.1
Single parent one family household only	6.0	5.3	4.9	6.4	7.1	6.2	9.4	6.0	5.8
Single person household	19.7	20.5	22.8	22.1	16.5	18.1	23.8	16.1	20.3
Other*(f)*	9.5	8.6	10.1	7.0	10.2	7.5	11.7	13.0	9.2
Total	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*
					— '000 —				
Estimated number of households being in									
Capital cities	1,158.8	986.4	421.2	368.2	365.7	64.8	22.2	83.0	3,470.3
Other urban areas	537.5	297.4	393.4	93.6	96.7	63.3	10.2	0.0	1,492.1
Rural areas	141.0	108.9	113.3	34.8	29.4	26.8	3.6	0.2	458.0
Number of households in sample	1,832	1,332	1,106	815	772	711	414	423	7,405
					— '000				
Estimated total number in population									
Households	1,837.4	1,392.7	927.8	496.5	491.8	154.9	36.0	83.3	5,420.4
Persons	5,154.2	3,927.8	2,509.2	1,278.3	1,440.9	422.8	97.4	242.2	15,072.9

(a) Darwin and environs and Alice Springs only. (b) The average obtained when the total estimated expenditure for a particular broad expenditure group is divided by the estimated number of households within the scope of the survey. (c) Details of the component expenditure items which comprise broad expenditure groups are given in Appendix B of the 1988–89 *HES Information Paper* (6527.0). (d) Household income is the sum of the gross weekly income of all household members. (e) Includes married couple family households where a combination of dependent and non-dependent children are present. (f) Includes married couple and single parent families living in multiple family households.

Source. Household Expenditure Survey, Australia. Detailed Expenditure Items, 1988–89 (6535.0), Household Expenditure Survey, Australia Household Characteristics, 1988–89 (6531.0); Household Expenditue Survey, Australia. States and Territories, 1988–89 (6533.0); and unpublished ABS data.

Household income

The effects of government benefits and taxes on household income

The ABS has conducted studies of the effects of government benefits and taxes on the distribution of household income based on a model of household income as measured by the 1988–89 Household Expenditure Survey (and previously 1984).

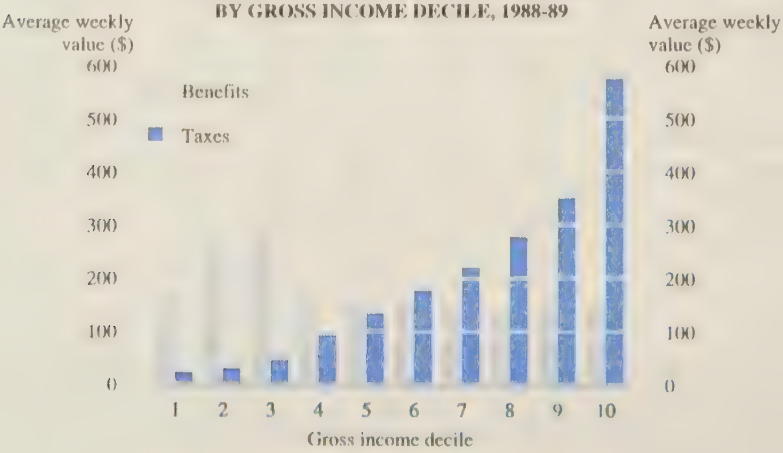
Household income was adjusted according to selected government taxes paid and benefits received by private households. Adjustments were made for cash benefits and pensions, personal tax and medicare liabilities, benefits from government outlay on health, education, housing, social security and welfare and indirect taxes imputed from household expenditure on goods and services. The result was an overall picture of the effects of transfers between households and Australian governments.

The 1988–89 study showed that government benefits and taxes reduce differences in income between households. The net effect of benefits and taxes was to increase the average weekly private income of the lowest income group (the 10% of households with the lowest gross income) from –$1.05 to an average weekly final income of $146.74. In comparison, the average weekly private income of the highest income group (the 10% of households with the highest gross income) was reduced from $1,665.44 to an average weekly final income of $1,227.68.

The relative contributions of benefits and taxes to the redistribution of income from high income groups to low income groups are shown in the graph. Taxes increased proportionally with income while benefits showed an initial increase and then a fall as income rose. The initial increase in benefits among households in the lower income deciles was associated with differences in their household type and size (*see* household characteristics given in the following table).

Government benefits and taxes also redistributed income across the life cycle. Households containing only persons under 35 years paid $221.36 per week in tax and received $42.37 per week in benefits. Married couple households with dependent children paid $263.15 per week in tax and received $195.40 per week in benefits. Households containing only persons over 65 years paid $46.23 per week in tax and received $246.75 per week in benefits.

ALL HOUSEHOLDS: BENEFITS AND TAXES BY GROSS INCOME DECILE, 1988-89



Source: Household Expenditure Survey, Australia: The Effects of Government Benefits and Taxes on Household Income, 1988-89 (6537.0).

ALL HOUSEHOLDS: SELECTED CHARACTERISTICS AND AVERAGE WEEKLY INCOME, BENEFITS AND TAXES BY GROSS INCOME DECILE, 1988–89

	Gross income details										*All house-holds*
Household characteristics	*Lowest 10%*	*Second decile*	*Third decile*	*Fourth decile*	*Fifth decile*	*Sixth decile*	*Seventh decile*	*Eight decile*	*Ninth decile*	*Highest 10%*	
Upper boundary of income decile group($)	149	230	324	431	540	656	790	955	1,204	.	.
						— per cent —					
Proportion of households with principal source of gross income being											
Wages and salaries	3.5	6.8	16.1	62.8	80.4	84.5	85.5	89.6	90.1	84.2	60.4
Own business	2.5	3.6	6.4	10.4	8.1	10.0	10.5	7.5	6.6	12.8	7.8
Other private income	11.6	10.0	12.5	12.6	7.6	4.1	3.8	2.6	3.2	2.8	7.1
Government pensions and benefits	79.9	79.6	64.9	14.2	3.9	1.4	*	*	*	*	24.4
Total(a)	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*
Proportion of households with composition											
Married couple only	8.4	40.3	42.2	23.2	16.8	15.7	21.5	21.7	25.9	15.9	23.2
Married couple with dependants only	7.0	6.5	18.3	27.7	37.0	42.6	40.7	39.2	34.0	30.4	28.4
Single parent with dependants only	1.6	17.4	9.2	7.5	4.6	2.9	1.7	*	■	*	4.5
Single person household	80.1	30.9	14.7	25.4	21.0	14.8	7.7	5.3	2.0	1.9	20.3
Multiple income unit household	2.9	5.0	15.6	16.1	20.6	24.1	28.5	33.5	37.8	51.8	23.6
Total	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*
Proportion of households renting government housing	11.3	14.8	10.8	5.8	7.3	3.1	2.6	2.8	2.8	1.9	6.3
						— average —					
Average age of household reference person	60.9	57.5	55.3	44.9	42.7	42.2	40.9	41.0	41.5	44.3	47.1
Average number of income units	1.0	1.1	1.2	1.2	1.2	1.3	1.3	1.4	1.5	1.8	1.3
Average number of persons per household											
Under 18 years	0.2	0.4	0.6	0.8	1.0	1.1	1.1	1.0	1.0	0.9	0.8
18 to 64 years	0.7	0.8	1.1	1.5	1.7	1.8	2.0	2.2	2.3	2.6	1.7
65 years and over	0.5	0.7	0.7	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.3
Total	*1.4*	*1.9*	*2.4*	*2.6*	*2.8*	*3.1*	*3.2*	*3.3*	*3.4*	*3.6*	*2.8*
Average number per household of											
Employed persons	0.2	0.2	0.4	1.0	1.2	1.4	1.7	1.9	2.2	2.5	1.3
Government cash benefit recipients	0.7	1.1	1.1	0.4	0.3	0.3	0.2	0.1	0.1	0.1	0.4
Dependent children	0.2	0.4	0.6	0.9	1.0	1.1	1.1	1.0	1.0	0.9	0.8
Retired persons	0.8	1.0	1.0	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.5
						— sample size —					
Number of households in sample	704	711	732	730	725	714	765	800	766	758	7,405
						— '000 —					
Estimated total number in population											
Households	538.2	539.8	542.7	542.0	543.9	541.9	538.9	544.6	545.1	543.4	5,420.4
Persons	739.4	1,040.4	1,286.8	1,419.6	1,547.0	1,673.4	1,749.8	1,779.9	1,854.7	1,981.9	15,072.9

For footnotes *see* end of table.

ALL HOUSEHOLDS: SELECTED CHARACTERISTICS AND AVERAGE WEEKLY INCOME, BENEFITS AND TAXES BY GROSS INCOME DECILE, 1988–89 — *continued*

	Gross income details										
Household characteristics	*Lowest 10%*	*Second decile*	*Third decile*	*Fourth decile*	*Fifth decile*	*Sixth decile*	*Seventh decile*	*Eight decile*	*Ninth decile*	*Highest 10%*	*All households*
	— Average weekly value ($) —										
Private income	**–1.05**	**48.31**	**112.65**	**314.76**	**440.46**	**551.72**	**690.60**	**845.54**	**1,040.47**	**1,665.44**	**572.02**
Direct benefits											
Age pension	59.50	61.03	52.19	11.51	5.34	8.00	*4.83	*3.36	*3.73	*2.37	21.13
Invalid pension	6.71	12.93	15.65	9.92	5.58	*5.89	*5.25	*2.00	*1.77	*1.61	6.73
Veteran's Affairs pension	6.75	24.21	32.92	11.83	7.01	*6.70	*2.73	*3.63	*2.01	*1.07	9.88
Unemployment benefit	6.91	8.79	26.83	8.13	*4.26	*4.03	*2.79	*3.02	*3.92	*0.63	6.93
Sole parent pension	*	28.14	15.42	*6.32	*4.67	*3.21	*	*	*	*	6.26
Family allowance	1.54	2.59	4.05	7.65	9.89	9.18	7.72	6.40	5.37	2.95	5.74
Other direct benefits	11.59	8.54	11.50	8.20	7.04	6.67	5.13	*4.35	4.87	*5.80	7.36
Total direct benefits	*93.34*	*146.23*	*158.56*	*63.57*	*43.79*	*43.69*	*29.58*	*24.08*	*23.19*	*15.05*	*64.02*
Gross income	**92.28**	**194.54**	**271.22**	**378.33**	**484.25**	**595.41**	**720.18**	**869.62**	**1,063.66**	**1,680.50**	**636.04**
Direct tax	0.99	3.63	9.54	44.60	77.11	111.57	145.47	192.60	252.88	453.23	129.45
Disposable income	**91.29**	**190.91**	**261.68**	**333.73**	**407.13**	**483.84**	**574.70**	**677.02**	**810.78**	**1,227.27**	**506.59**
Indirect benefits											
School education	7.45	14.89	25.73	33.32	37.88	44.27	45.83	43.91	47.00	42.12	34.27
Tertiary education	3.20	6.50	7.62	8.84	12.26	10.76	11.25	16.19	22.83	27.34	12.70
Other education benefits	0.44	0.84	1.35	1.80	2.29	2.36	2.52	2.54	2.84	2.71	1.97
Total education benefits	*11.10*	*22.24*	*34.71*	*43.97*	*52.43*	*57.40*	*59.60*	*62.63*	*72.67*	*72.17*	*48.95*
Hospital care	28.62	36.50	38.26	24.28	21.54	22.54	21.51	22.56	23.93	26.24	26.59
Medical clinics	9.07	12.46	14.09	13.45	13.82	14.50	14.92	14.93	15.19	16.10	13.86
Pharmaceuticals	7.19	10.15	9.19	2.92	1.93	2.16	1.64	1.45	1.47	1.22	3.92
Other health benefits	1.24	1.80	2.26	2.41	2.62	3.01	3.19	3.16	3.32	3.53	2.66
Total health benefits	*46.12*	*60.90*	*63.80*	*43.06*	*39.91*	*42.20*	*41.26*	*42.09*	*43.90*	*47.09*	*47.03*
Housing benefits	4.24	6.47	4.13	3.44	2.24	1.65	0.87	0.36	0.58	0.24	2.42
Social security and welfare benefits	16.62	24.61	24.95	11.68	8.99	8.77	7.780	5.96	5.71	3.48	11.84
Total indirect benefits	*78.07*	*114.22*	*127.58*	*102.14*	*103.57*	*110.02*	*109,53*	*111.04*	*122.86*	*122.98*	*110.23*
Disposable income plus indirect benefits	**169.40**	**305.13**	**389.23**	**435.86**	**510.70**	**593.88**	**684.25**	**788.06**	**933.62**	**1,350.24**	**616.83**
Indirect taxes by commodity group											
Petrol and petroleum products	3.43	4.66	6.18	7.82	9.01	9.95	11.53	13.16	14.10	15.54	9.55
Tobacco	2.11	3.03	3.75	4.40	4.39	4.58	4.77	4.83	4.64	4.68	4.12
Alcohol	1.71	2.35	2.97	3.59	4.70	4.30	5.76	6.85	7.66	9.87	4.98
Ownership of dwellings	2.34	2.54	2.76	4.29	4.70	5.56	6.07	6.84	7.40	7.58	5.01
Other indirect taxes	13.03	15.55	21.17	29.57	35.41	42.08	46.49	54.93	65.44	84.89	40.91
Total indirect taxes	*22.62*	*28.12*	*36.83*	*49.67*	*58.21*	*66.47*	*74.62*	*86.62*	*99.24*	*122.57*	*64.57*
Final income	**146.74**	**277.04**	**352.44**	**386.23**	**452.47**	**527.38**	**609.61**	**701.44**	**834.40**	**1,227.68**	**552.26**
Total benefits	*171.41*	*260.45*	*286.15*	*165.71*	*147.36*	*153.71*	*139.10*	*135.12*	*146.05*	*130.04*	*174.26*
Total taxes	*23.61*	*31.74*	*46.37*	*94.27*	*135.32*	*178.04*	*220.09*	*279.22*	*352.12*	*575.80*	*194.02*
Net benefits	*147.80*	*228.70*	*239.78*	*71.44*	*12.04*	*–24.32*	*–80.99*	*–144.10*	*–206.07*	*–437.76*	*–19.76*

(a) Includes households which reported no source of positive income.

* only, indicates that the estimate in the cell has a relative standard error of 50 per cent or greater.

* next to estimate, indicates that the estimate in the cell has a relative standard error of 25 per cent or greater but less than 50 per cent.

Source: Household Expenditure Survey, Australia: The Effects of Government Benefits and Taxes on Household Income, 1988–89 (6537.0).

Income distribution

Surveys of income have been conducted by the ABS at regular intervals. In the last such survey, conducted in the period October to December 1990, income was collected both on a financial year basis (in respect of 1989–90) and on a current basis (at the time of interview).

As has been customary in such surveys, income was collected in respect of each of the following sources: wages and salaries; own business, trade or profession; government cash benefits; superannuation; interest; rent; dividends; other sources. These are then aggregated to arrive at total income.

The survey was designed to enable the production of estimates both for individuals and for groups of individuals such as income units, families and households.

FULL-YEAR, FULL-TIME WORKERS(a): MEAN GROSS ANNUAL EARNED INCOME BY EDUCATIONAL ATTAINMENT BY AGE BY SEX, 1989–90

				Mean gross annual earned income		
Educational attainment	*Males ('000)*	*Females ('000)*	*Persons ('000)*	*Males ($)*	*Females ($)*	*Persons ($)*
With post-school qualifications						
Degree	499.3	198.9	698.2	46,290	33,680	42,700
Certificate (non-trade)/diploma	521.5	520.9	1,042.4	34,820	25,330	30.080
Trade certificate	1,047.7	43.3	1,090.9	29,010	19,770	28,640
Other	25.5	2.6	28.1	31,250	21,420	30,350
Total	*2,093.9*	*765.6*	*2,859.6*	*34,600*	*27,170*	*32,610*
Without post-school qualifications						
Left school at age						
18 or over	222.5	75.4	297.9	28,610	20,890	26,660
17	299.6	163.5	463.1	27,630	21,260	25,380
16	384.4	204.2	588.6	26,490	20,690	24,480
15 or 14	593.9	299.6	893.5	25,930	19,720	23,850
13 or under	107.5	30.9	138.4	24,700	16,160	22,790
Never went to school	8.3	1.9	10.2	19,940	17,670	19,520
Total	*1,616.1*	*775.5*	*2,391.7*	*26,630*	*20,270*	*24,570*
Total	**3,710.1**	**1,541.2**	**5,251.2**	**31,130**	**23,700**	**28,950**

(a) Excludes 100,300 full-year, full-time workers whose earned income was zero.

Source: Survey of Income & Housing Costs and Amenities: Persons with Earned Income, Australia, 1990 (6546.0).

ALL INCOME UNITS: DECILE GROUPS, TYPE OF INCOME UNIT, INCOME SHARE AND MEAN GROSS WEEKLY INCOME, OCTOBER–DECEMBER, 1990
($)

	Married couple income units				*One parent income units*		*One person income units*		*All income units*	
	With dependent children		*With no dependent children*							
Decile group(a)	*Income share*	*Mean weekly income*	*Income share*	*Mean weekly income*	*Income share*	*Mean weekly income*	*Income share*	*Mean weekly income*	*Income share*	*Mean weekly income*
Gross weekly income decile										
Lowest 10%	2.3	194	2.3	158	3.4	121	1.7	59	1.5	85
2nd	4.6	387	3.8	254	5.5	194	2.9	135	3.1	162
3rd	6.0	501	4.4	297	5.7	213	5.7	151	4.2	231
4th	7.1	596	5.5	364	7.3	236	5.4	180	5.5	301
5th	8.2	688	6.9	463	7.5	261	7.0	235	6.9	383
6th	9.3	783	8.9	591	8.8	298	9.4	314	8.6	471
7th	10.6	888	11.2	746	10.3	360	11.4	386	10.6	580
8th	12.3	1,023	13.6	914	12.9	451	13.5	457	13.3	729
9th	14.4	1,210	16.9	1,128	15.5	542	16.4	553	17.2	944
Highest 10%	25.2	2,107	26.6	1,772	23.1	794	26.6	897	29.2	1,607
Total	**100.0**	**838**	**100.0**	**669**	**100.0**	**348**	**100.0**	**338**	**100.0**	**550**
Median gross weekly income ($)		736		523		278		273		426
Number ('000)		2,057.3		2,007.5		385.7		3,554.5		8,005.1

(a) 10 per cent groupings of the estimated population when income recipients or income units are ranked in ascending order according to each income recipient's or income unit's total gross income.

Source: Unpublished ABS data from the 1990 Survey of Income & Housing Costs and Amenities.

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FOR MORE INFORMATION

The ABS has a far wider range of information on Australia than that contained in the *Year Book*. Information is available in the form of regular publications, electronic data services, special tables and from investigations of published and unpublished data.

For further information contact ABS Information Services at one of the addresses listed on the page facing the Introduction to the *Year Book*.

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Health

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This chapter provides information on various aspects of the health of the Australian population and the activities of the Commonwealth relating to health. There is, however, government responsibility for health at the State and local levels. There are constitutional limits on the Commonwealth Government's role in the health care field, and the primary responsibility for planning and provision of health services is with the State and Territory Governments.

At the national level, health services in Australia are administered by the Commonwealth Government. The Government appoints two Ministers to the Portfolio of Health, Housing and Community Services. The Minister for Health, Housing and Community Services exercises overall responsibility over the Commonwealth Department of Health, Housing and Community Services, represents the portfolio in Cabinet and has particular responsibility for Budget matters and major policy decisions. The Minister for Aged, Family and Health Services has responsibility for the development and administration of particular health matters, including the Pharmaceutical Benefits Scheme and Therapeutic Goods. The Commonwealth Government is primarily concerned with the formation of broad national policies, and influences policy making in health services through its financial arrangements with the State and Territory Governments, through the provision of benefits and grants to organisations and individuals, and through the regulation of health insurance.

The direct provision of health services, broadly speaking, is the responsibility of the State and Territory Governments. Each has a Minister who is responsible to the Government of his/her particular State or Territory for the administration of its health authorities. In some, the responsibility for health services is shared by several authorities whilst in others, one authority is responsible for all these functions.

Health care is also delivered by local government, semi-voluntary agencies, and profit making non-governmental organisations.

Information on the activities of government and other bodies on health-related matters is provided later in this chapter.

THE HEALTH OF AUSTRALIANS

The following information from various sources provides a profile of the health of the Australian population.

National Health Survey, 1989–90

During 1989–90 the ABS interviewed approximately 57,000 persons in the first of a new series of five yearly National Health Surveys. The survey focused on the health status of Australians, their use of health facilities and services and lifestyle factors affecting the health of the nation. The following statistics represent just a selection of those available.

Health status

As shown in the following table, of the population aged 18 years and over, 79.2 per cent reported that their health was good or excellent, while 16.3 per cent reported their health was fair and only 4.5 per cent reported they were in poor health.

PERSONS AGED 18 AND OVER: SELF ASSESSED HEALTH STATUS(a), 1989–90
(per cent)

	Self assessed health status				
Whether experienced illness condition	*Excellent*	*Good*	*Fair*	*Poor*	*Total*
No recent or long-term conditions	47.6	48.0	4.2	*0.2	100.0
Recent conditions only	38.8	51.6	8.6	1.0	100.0
Long-term conditions only	40.4	50.6	8.5	*0.5	100.0
Both recent and long-term conditions	21.7	49.9	21.5	6.9	100.0
Total					
Per cent	**29.2**	**50.0**	**16.3**	**4.5**	**100.0**
Number ('000)	**3,633.3**	**6,221.2**	**2,023.7**	**566.0**	**12,444.2**

(a) As reported by respondents.

* Relative standard error between 25 per cent and 50 per cent.

Source: National Health Survey: Summary of Results, 1989–90 (4364.0).

Some 72.9 per cent of the population reported experiencing one or more illnesses/injuries during the two weeks prior to interview. This compared to 62.3 per cent of persons who reported a recent illness in the Australian Health Survey of 1983. Of these recent conditions, headaches (due to unspecified or trivial cause) were the most frequently reported single condition affecting 12.2 per cent of the population.

Of the total Australian population, 66.2 per cent reported having one or more long-term conditions (conditions which had lasted or were expected to last for a period of six months or more), with more females reporting such a condition than males (68.4% and 64.0% respectively).

Eyesight disorders of refraction and accommodation (including long and short sight) were the most frequently reported long-term conditions affecting 31.5 per cent of the population, or approximately 5.4 million persons. Other frequently reported conditions included arthritis, which was reported as a long-term condition by 1.8 million persons or 10.6 per cent of the population, hay fever (9.8%), unspecified back trouble (8.1%), asthma (8.0%) and hypertension (7.1%).

PERSONS WHO EXPERIENCED LONG-TERM CONDITIONS: TYPE OF CONDITION(a) BY AGE AND SEX, 1989–90
(rate(b))

	Age group (years)									
Type of condition	*<5*	*5–14*	*15–24*	*25–44*	*45–64*	*65–74*	*>74*	*Males*	*Females*	*Persons*
Neoplasms	*1.5	*1.6	*1.7	10.1	30.4	58.8	56.9	16.0	16.2	16.1
Endocrine, nutritional and metabolic disorders	4.0	5.0	10.2	39.8	126.9	161.6	115.7	52.6	58.8	55.7
Mental disorders	*4.2	17.5	15.1	21.1	30.3	36.0	36.1	20.8	22.7	21.8
Nervous system and sense organ diseases	35.9	119.5	221.4	317.6	721.8	787.8	790.0	349.8	414.6	382.3
Circulatory system diseases	10.0	10.2	20.8	84.7	252.6	432.8	482.7	106.1	155.8	131.0
Respiratory system diseases	134.4	240.6	246.6	227.3	210.6	218.9	177.6	212.0	227.5	219.8
Digestive system diseases	11.9	10.8	16.5	44.0	95.6	135.8	142.3	52.0	53.5	52.7
Genitourinary system diseases	4.7	10.3	14.9	27.2	45.5	44.2	53.7	13.5	40.1	26.8
Diseases of the skin and subcutaneous tissue	61.1	46.8	59.4	64.1	47.4	55.3	58.8	49.7	63.3	56.5
Diseases of the musculoskeletal system and connective tissue	9.5	33.1	153.9	269.6	430.2	526.5	560.4	246.1	269.9	258.0

For footnotes *see* end of table.

PERSONS WHO EXPERIENCED LONG-TERM CONDITIONS: TYPE OF CONDITION(a) BY AGE AND SEX, 1989–90 — *continued*

(rate(b))

	Age group (years)									
Type of condition	*<5*	*5–14*	*15–24*	*25–44*	*45–64*	*65–74*	*>74*	*Males*	*Females*	*Persons*
Symptoms, signs and ill defined conditions	30.1	41.0	41.4	42.6	42.0	55.3	54.7	35.9	49.1	42.5
Injury and poisoning	*1.7	5.9	19.4	16.6	13.6	14.8	19.2	16.7	10.9	13.8
Other(c)	10.1	8.0	22.2	26.1	25.3	31.4	47.1	21.1	27.0	24.2
Total persons(d)										
Rate(b)	**258.4**	**421.4**	**554.5**	**674.4**	**896.4**	**949.0**	**958.3**	**639.6**	**682.3**	**661.0**
Number ('000)	**321.2**	**1,045.3**	**1,529.4**	**3,615.3**	**2,912.0**	**1,147.4**	**659.4**	**5,421.0**	**5,808.9**	**11,229.9**

(a) Condition groups based on chapter headings of the International Classification of Diseases, Ninth Revision (ICD9). (b) Rate per 1,000 population of same age and sex. (c) Includes infectious and parasitic diseases, diseases of the blood and blood forming organs, complications of pregnancy, childbirth and the puerperium, congenital anomalies, disability n.e.c. and unspecified illness. (d) Each person may have reported more than one type of illness and therefore components do not add to totals.

Source: National Health Survey: Summary of Results, 1989–90 (4364.0).

Health related actions

Over three-quarters of the population surveyed (75.5%), reported taking a health-related action during the two weeks prior to interview, ranging from using medications or taking vitamins/minerals (the most frequent) to having been a hospital in-patient.

During the two weeks prior to interview, 20.0 per cent of respondents (an estimated 3.4 million persons) had consulted a doctor. The table below shows the strong association between doctor consultations and age once beyond preschool years.

PERSONS WHO TOOK HEALTH RELATED ACTION DURING THE TWO WEEKS PRIOR TO INTERVIEW: TYPE OF ACTION BY AGE, 1989–90

(rate(a))

	Age group (years)								
Type of action	*<5*	*5–14*	*15–24*	*25–44*	*45–64*	*65–74*	*>74*	*Total*	*Number of persons ('000)*
Hospital in-patient episode	7.5	5.3	8.7	8.5	11.2	10.9	21.6	9.2	156.7
Visit to casualty/ outpatients	34.0	17.0	25.8	21.9	24.9	38.8	36.4	25.1	425.7
Doctor consultation	237.8	141.0	165.0	172.6	224.7	322.1	370.9	200.1	3,400.2
Dental consultation(b)	21.9	91.2	47.9	50.7	49.4	45.6	20.0	53.1	876.0
Consultation with other health professional	151.6	58.7	82.5	93.5	97.1	109.6	134.0	94.4	1,603.3
Taken vitamins/minerals	147.5	180.7	223.5	261.8	261.1	251.0	227.4	233.1	3,960.0
Used other medications	609.5	476.8	576.7	624.6	730.9	853.5	891.7	641.6	10,899.8
Days away from work/ school	. .	136.1	113.2	67.8	47.9	. .	. .	68.8	1,168.8
Other days of reduced activity(b)	113.4	91.0	83.0	89.3	107.5	139.7	157.5	99.7	1,644.8
Total persons(c)									
Rate	**715.5**	**636.0**	**699.2**	**752.4**	**819.4**	**906.0**	**931.1**	**755.0**	
Number ('000)	**889.5**	**1,577.7**	**1,928.4**	**4,033.8**	**2,662.0**	**1,095.3**	**640.7**		**12,827.2**

(a) Rate per 1,000 population of same age. (b) Persons aged 2 years and over. (c) Each person may have taken more than one type of action during the two weeks prior to interview and therefore components do not add to totals.

Source: National Health Survey: Summary of Results, 1989–90 (4364.0).

Use of medications (including vitamin and mineral supplements) was the most frequently reported health-related action taken. Some 70.4 per cent of the population (about 11.9 million people) reported using medications in the two weeks prior to interview. The proportion of persons using medications was higher for females (76.2%) than males (64.5%).

PERSONS WHO USED MEDICATION DURING THE TWO WEEKS PRIOR TO INTERVIEW: TYPE OF MEDICATION BY AGE AND SEX, 1989–90
(rate(a))

	Age group (years)									
Type of medication	*<5*	*5–14*	*15–24*	*25–44*	*45–64*	*65–74*	*>74*	*Males*	*Females*	*Persons*
Vitamin and mineral supplements	147.5	180.7	223.5	261.8	261.1	251.0	227.4	190.7	275.3	233.1
Medication for cough or cold	265.9	149.5	121.2	98.0	90.6	91.3	94.3	119.5	119.6	119.5
Medication for allergy	36.6	69.7	54.9	63.8	63.5	58.7	31.7	53.9	65.1	59.5
Skin ointments	247.6	140.2	177.5	172.3	173.6	229.4	259.6	171.3	192.3	181.8
Stomach medicines or laxatives	27.0	21.0	39.0	65.3	118.8	191.1	227.3	64.0	91.0	77.5
Medications for fluid, heart, blood pressure	. .	. .	2.6	31.8	224.9	463.7	542.2	88.5	128.3	108.4
Pain relievers	279.3	207.0	344.0	402.5	402.1	386.1	408.2	289.5	419.1	354.4
Sleeping medications	27.0	2.5	11.1	26.9	80.7	171.7	233.7	34.1	65.3	49.7
Tranquillisers or sedatives	*2.3	*0.9	3.2	17.6	45.3	66.9	58.5	17.0	27.3	22.2
Other medications	123.9	119.7	145.7	146.9	253.5	394.7	437.9	161.2	220.4	190.8
Total persons(b)	**656.1**	**548.3**	**654.4**	**701.7**	**782.6**	**880.6**	**912.2**	**644.9**	**761.9**	**703.6**

(a) Rate per 1,000 population of same age and sex. (b) Each person may have reported taking more than one type of medication and therefore components do not add to totals.

Source: National Health Survey: Summary of Results, 1989–90 (4364.0).

When compared with information recorded in the 1983 Australian Health Survey, results show that the usage of medications has increased. The proportion of persons using vitamin and mineral supplements has increased from 19.1 per cent in 1983 to 23.3 per cent in 1989-90 and persons using all other medications from 47.7 per cent to 64.1 per cent over the same period.

708,100 persons (9.1% of total employed people) reported days away from work due to illness or injury. On average they reported three days away during the two week reference period. The most frequently reported reasons for days away from work were respiratory conditions (including common cold, influenza, asthma, etc.) reported by 34.9 per cent of persons who took days away from work through illness/injury.

Approximately 2.3 million people (13.7% of the population) reported having one or more hospital episodes in the 12 months prior to interview, of whom 41.9 per cent were males and 58.1 per cent were females. This difference is largely attributable to the number of female hospital episodes associated with pregnancy and childbirth.

Health risk factors

Results of the survey show that over 3.5 million people aged 18 years and over smoke, which is equivalent to 28.4 per cent of the adult population. A further 23.2 per cent reported they were ex-smokers. The proportion of smokers is highest in the younger age groups; 36.0 per cent of those aged 18 to 24 reported being smokers compared with 29.6 per cent of those aged 35 to 44 years, and only 8.1 per cent of those aged 75 years and over. Figures also show that more males than females smoked (32.1% and 24.7% respectively), although the difference was less marked in the younger age groups.

PERSONS AGED 18 YEARS AND OVER: SMOKER STATUS BY AGE AND SEX, 1989–90
(per cent)

	Age group (years)								
Smoker status	*18–24*	*25–34*	*35–44*	*45–64*	*65–74*	*>74*	*Males*	*Females*	*Persons*
Smokers									
Manufactured cigarettes only	34.6	32.1	26.8	22.4	13.3	5.9	27.0	24.2	25.6
Manufactured cigarettes and cigars or pipes	0.6	0.7	0.8	0.7	*0.2	. .	1.2	0.1	0.6
Roll your own cigarettes only	0.8	1.8	1.5	2.0	2.0	1.4	2.9	0.4	1.6
Cigars or pipes and roll your own only	. .	*0.2	*0.1	0.2	*0.2	. .	0.2	. .	0.1
Total smokers	*36.0*	*34.9*	*29.6*	*26.0*	*16.5*	*8.1*	*32.1*	*24.7*	*28.4*
Ex-smoker	10.4	19.5	22.7	28.1	36.0	31.2	28.8	17.8	23.2
Never smoked	53.7	45.6	47.7	45.9	47.5	60.7	39.1	57.4	48.4
Total persons									
Per cent	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Number ('000)	**1,937.3**	**2,799.9**	**2,561.2**	**3,248.7**	**1,209.0**	**688.1**	**6,144.7**	**6,299.5**	**12,444.2**

Source: National Health Survey: Smoking, 1989–90 (4382.0) and National Health Survey: Summary of Results, 1989–90 (4364.0).

62.5 per cent of people aged over 18 years reported having an alcoholic drink during the week prior to interview: 73.5 per cent of males and 51.8 per cent of females. 8.9 per cent of persons reported they had never consumed alcohol.

People who consumed alcohol in the reference week were grouped by health risk level according to the quantity of alcohol they consumed. These levels are based on the standards adopted by the National Health and Medical Research Council. In total, 82.2 per cent of drinkers were grouped as at low risk level, 10.9 per cent at medium risk level and 6.9 per cent at high risk level. High risk drinkers amongst males outnumbered females in this category by more than three to one.

PERSONS AGED 18 YEARS AND OVER WHO CONSUMED ALCOHOL IN THE WEEK PRIOR TO INTERVIEW: HEALTH RISK LEVEL OF ALCOHOL INTAKE(a) BY AGE AND SEX, 1989–90
(per cent)

	Age group (years)								
Risk level	*18–24*	*25–34*	*35–44*	*45–64*	*65–74*	*>74*	*Males*	*Females*	*Total*
Low	49.6	56.0	55.8	50.9	43.4	37.0	58.6	44.3	51.5
Medium	7.9	7.5	7.3	7.0	5.0	1.9	7.8	5.9	6.8
High	6.0	4.9	4.1	4.5	2.3	0.4	7.1	1.6	4.3
Total persons who consumed alcohol(b)	*63.4*	*68.5*	*67.1*	*62.4*	*50.8*	*39.4*	*73.5*	*51.7*	*62.5*
Total persons who did not consume alcohol(b)	36.6	31.5	32.9	37.6	49.2	60.6	26.5	48.3	37.5
Total persons									
Per cent	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Number ('000)	**1,937.3**	**2,799.9**	**2,561.2**	**3,248.7**	**1,209.0**	**688.1**	**6,144.7**	**6,299.5**	**12,444.2**

(a) Based on the average daily consumption during the week prior to interview and grouped according to standards adopted by the National Health and Medical Research Council. (b) In the reference week.

Source: National Health Survey: Alcohol Consumption, 1989–90 (4381.0).

Based on self-reported height and weight, 35.3 per cent of males and 20.5 per cent of females aged 18 years and over were classified as overweight, and a further 8.2 per cent of males and 9.1 per cent of females were classified obese based on standards adopted by the National Health and Medical Research Council.

PERSONS AGED 18 AND OVER: RELATIVE WEIGHT(a) BY AGE AND SEX, 1989–90
(per cent)

	Age group (years)						
Relative weight	*18–24*	*25–34*	*35–44*	*45–64*	*65–74*	*>74*	*Total*
Males							
Underweight	13.4	5.8	4.2	3.4	5.2	11.5	6.2
Acceptable weight	56.9	52.8	45.3	40.7	43.4	51.4	47.7
Overweight	21.2	32.5	38.8	43.0	40.4	27.8	35.3
Obese	3.7	6.7	10.1	11.0	9.4	4.2	8.2
Not available	4.8	2.2	1.5	1.9	1.6	5.1	2.5
Total males							
Per cent	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Number ('000)	**983.7**	**1,410.8**	**1,291.7**	**1,651.3**	**548.6**	**258.5**	**6,144.7**
Females							
Underweight	31.0	22.1	14.8	9.0	11.4	17.4	17.2
Acceptable weight	49.0	52.8	52.3	45.7	43.9	42.1	48.7
Overweight	10.4	14.9	20.3	28.7	27.5	20.6	20.5
Obese	3.8	7.0	9.2	13.5	11.2	7.2	9.1
Not available	5.8	3.2	3.4	3.1	5.9	12.7	4.5
Total females							
Per cent	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Number ('000)	**953.6**	**1,389.1**	**1,269.5**	**1,597.4**	**660.3**	**429.6**	**6,299.5**

(a) Derived from reported height and weight, and grouped based on standards adopted by the National Health and Medical Research Council.

Source: National Health Survey: Summary of Results, 1989–90 (4364.0).

Women respondents to the survey who were aged 18 to 64 years were invited to complete a small additional questionnaire about specific women's health issues. Results of this component of the survey showed that 85.5 per cent of women in this age group reported they had at some time had a Pap Smear Test, for evidence of cervical cancer, and 42.5 per cent had last been tested in the twelve months prior to interview. An estimated 29.3 per cent of women aged 18 to 64 years had never had a Pap Smear Test or had not been tested within the last three years. Results of the survey also showed a tendency for older women to have tests less frequently than women in younger age groups.

Of women aged 18 to 64 years, 62.8 per cent regularly examine their own breasts for lumps, and 70.9 per cent reported having had a breast examination by a doctor or nurse. One third (32.9%) of women aged 45 to 54 years reported having had a mammogram, and 17.8 per cent of women overall in the age group 18 to 64 years had been tested. Of those women who reported having had a mammogram, 74.0 per cent had last been screened within the three years prior to interview.

Communicable diseases

Notifiable diseases

State and Territory health authorities submit notifiable disease data to the Commonwealth Department of Health, Housing and Community Services for publication in Communicable Diseases Intelligence.

NOTIFIABLE DISEASES, NUMBER OF CASES NOTIFIED, 1990

Disease	*NSW*	*Vic.*	*Qld*	*WA*	*SA*	*Tas.*	*NT*	*ACT*	*Total*
AIDS	366	108	55	25	21	4	2	10	591
Amoebiasis(a)	—	—	6	1	—	—	—	1	8
Ankylostomiasis(a)	—	—	—	—	—	2	(b)	—	2
Anthrax(a)	—	—	—	—	—	—	—	—	—
Arbovirus infection(a)	289	78	1,484	30	23	12	92	—	2,008
Brucellosis	5	—	41	—	—	—	—	—	46
Campylobacter infection(a)	1,917	396	561	820	1,296	264	324	105	5,683
Chancroid	—	—	(b)	—	13(b)	(b)	—	—	13
Cholera	1	—	—	—	—	—	—	—	1
Congenital rubella syndrome	—	—	—	—	2	(b)	—	—	2
Diphtheria(a)	—	—	3	—	—	—	4	—	7
Donovanosis(a)	—	(b)	49	—	(b)	—	42	—	91
Giardiasis(a)	621	174	(b)	—	—	—	—	22	817
Genital herpes	972	n.a.	1,436	(b)	(b)	(b)	22	40	2,470
Gonococcal ophthalmia neonatorum	—	(b)	—	—	—	(b)	—	(b)	—
Gonorrhoea(a)	403	n.a.	489	275	173	3	558	18	1,919
Hepatitis A (infectious)	36	41	196	—	99	6	145	7	530
Hepatitis B (serum)(a)	426	583	1,783	—	36	57	27	58	2,970
Hepatitis — unspecified	54	47	569	(b)	5	11	7	14	707
Hydatid disease(a)	2	—	8	1	2	2	—	1	16
Lassa fever	—	—	—	—	—	—	—	—	—
Legionnaires disease(a)	27	13	24	4	19	—	—	3	90
Leprosy	5	13	1	3	1	—	8	—	31
Leptospirosis(a)	49	37	22	4	6	3	—	—	121
Lymphogranuloma venereum(a)	—	(b)	—	(b)	(b)	(b)	(b)	—	—
Malaria(a)	193	87	499	28	33	5	13	24	882
Marburg disease	—	—	—	—	—	—	—	—	—
Measles	388	342	47	27	43	(b)	3	30	880
Meningococcal infections(a)	84	83	19	47	21	12	26	3	295
Non-specific urethritis	1,479	(b)	1	(b)	(b)	(b)	10	63	1,553
Ornithosis(a)	1	—	3	—	15	—	—	4	23
Pertussis (whooping cough)	149	75	159	251	172	2	11	43	862
Plague	—	—	—	—	—	—	—	—	—
Poliomyelitis(a)	—	—	—	—	—	—	—	—	—
Q-fever(a)	156	18	235	—	21	(b)	—	1	431
Rabies	—	—	—	—	—	—	—	—	—
Salmonella infections(a)	1,486	487	1,357	—	636	155	404	39	4,564
Shigella infections(a)	146	64	92	—	94	3	209	2	610
Smallpox	—	—	—	—	—	—	—	—	—
Syphilis(a)	333	n.a.	729	49	83	2	437	10	1,643
Tetanus	2	2	—	—	2	—	(b)	—	6
Trachoma	2	(b)	—	—	3	—	—	—	5
Tuberculosis (all forms)(a)	—	353	136	—	89	17	62	27	684
Typhoid fever(a)	44	22	—	—	3	—	—	1	70
Typhus (all forms)(a)	—	—	4	—	—	—	—	—	4
Vibrio parahaemolyticus infections(a)	22	—	(b)	—	1	—	—	(b)	23
Yellow fever	—	—	—	—	—	—	—	—	—
Yersinia infections(a)	133	27	67	3	197	(b)	6	(b)	433

(a) Confirmed by appropriate diagnostic tests. (b) Not notifiable.
NOTE: For some of the diseases shown above information is not available or the diseases are not notifiable in certain States/Territories.

Source: Commonwealth Department of Health, Housing and Community Services.

Childhood immunisation

Immunisation is recommended for all Australian children as a protection against childhood diseases such as poliomyelitis, diphtheria, measles, mumps, tetanus and whooping cough. Immunisation programs are implemented in all States and Territories of Australia. The childhood immunisation schedule, as recommended by the National Health and Medical Research Council, is available from the Commonwealth Department of Health, Housing and Community Services.

Results of the 1989–90 National Health Survey show that the immunisation status of children varies with the type of immunisation involved. For example, while 86.3 per cent of children were protected against diptheria and tetanus, only 70.9 per cent of those in the same age group were immunised against whooping cough and 72.1 per cent against polio, although a further 19.3 and 15.3 per cent respectively were partially immunised against the latter two diseases (i.e., they had received less than the number of vaccinations recommended for their age). Of children in the 1 to 6 years age group 86.0 per cent (1.3 million) were immunised against measles and 80.5 per cent (1.2 million) against mumps.

CHILDREN AGED 0 TO 6 YEARS: TYPE OF IMMUNISATION BY IMMUNISATION STATUS(a), 1989–90 ('000)

			Immunisation status		
Type of immunisation	*Fully immunised*	*Partly immunised*	*Not immunised*	*Not known whether immunised*	*Total*
Diptheria/Tetanus	1,508.9	95.5	65.4	77.8	1,747.7
Whooping cough	1,238.7	337.3	93.8	77.8	1,747.7
Polio	1,260.8	278.4	101.3	107.2	1,747.7
Measles(b)	1,276.9	. .	163.9	44.0	1,484.8
Mumps(b)	1,195.7	. .	221.8	67.3	1,484.8

(a) Based on the number of vaccinations received compared with levels recommended by the National Health and Medical Research Council. Children who had received the recommended number of vaccinations for their age are classified as fully immunised; those who had received some, but less than the number recommended for their age are classified as partly immunised. (b) Excludes children aged less than one year.

Source: National Health Survey: Summary of Results, 1989–90 (4364.0).

Hepatitis B vaccine is currently offered to neonates born to mothers belonging to community groups in which the carrier rate for Hepatitis B is estimated to exceed five per cent.

NOTIFIABLE DISEASES, NUMBER OF CASES NOTIFIED, 1986–1990

Disease	*1986*	*1987*	*1988*	*1989*	*1990*
AIDS	228	371	522	568	591
Amoebiasis(a)	54	58	60	64	8
Ankylostomiasis(a)	40	57	35	106	2
Anthrax(a)	—	1	—	—	—
Arbovirus infection(a)	1,414	1,085	897	2,809	2,008
Brucellosis(a)	12	12	16	20	46
Campylobacter infection(a)	2,922	2,923	4,082	4,279	5,683
Chancroid(a)	12	4	4	3	13
Cholera	—	—	2	—	1
Congenital rubella syndrome	2	3	2	—	2
Diphtheria(a)	44	32	61	1	7
Donovanosis(a)	185	148	133	99	91
Giardiasis(a)	1,316	1,508	1,753	2,060	817
Genital herpes	2,136	2,359	2,129	2,581	2,470
Gonococcal Ophthalmia neonatorum(a)	5	5	3	1	—
Gonorrhoea(a)	6,585	4,979	4,079	3,153	1,919
Hepatitis A (infectious)	1,685	715	600	460	530
Hepatitis B (serum)(a)	1,766	1,605	1,683	3,017	2,970
Hepatitis — unspecified	136	131	69	43	707
Hydatid disease(a)	14	17	15	15	16
Lassa fever	—	—	—	—	—
Legionnaires disease(a)	68	96	67	104	90
Leprosy	27	31	20	34	31
Leptospirosis(a)	179	133	104	99	121
Lymphogranuloma venereum(a)	4	—	—	—	—
Malaria(a)	696	574	601	770	882
Marburg disease	—	—	—		
Measles	(b)	(b)	248	169	880

For footnotes *see* end of table.

NOTIFIABLE DISEASES, NUMBER OF CASES NOTIFIED, 1986–1990 — *continued*

Disease	*1986*	*1987*	*1988*	*1989*	*1990*
Meningococcal infections(a)	51	96	126	204	295
Non-specific urethritis	8,063	7,384	3,210	1,739	1,553
Ornithosis(a)	43	13	21	25	23
Pertussis (whooping cough)	601	291	153	614	862
Plague	—	—	—	—	—
Poliomyelitis(a)	1	—	—	—	—
Q-fever(a)	367	355	424	353	431
Rabies	—	—	—	—	—
Salmonella infections(a)	2,494	2,739	3,484	4,492	4,564
Shigella infections(a)	833	586	581	779	610
Smallpox	—	—	—	—	—
Syphilis(a)	3,594	3,190	3,056	2,099	1,643
Tetanus	5	5	5	11	6
Trachoma	233	274	268	504	5
Tuberculosis (all forms)(a)	1,041	686	1,165	1,351	684
Typhoid fever(a)	45	47	40	57	70
Typhus (all forms)(a)	11	9	8	2	4
Vibrio parahaemolyticus infections(a)	6	6	2	10	23
Yellow fever	—	—	—	—	—
Yersinia infections(a)	78	122	172	241	433

(a) Confirmed by appropriate diagnostic tests. (b) Not notifiable.
NOTE: For some of the diseases shown above information is not available or the diseases are not notifiable in certain States/Territories.

Source: Commonwealth Department of Health, Housing and Community Services.

Acquired Immune Deficiency Syndrome (AIDS)

The National HIV/AIDS Strategy was launched in August 1989. The Strategy outlines the direction of AIDS policy and the specific programs to be put in place to manage the epidemic into the 1990s. It was developed following extensive national community consultations and release of the Policy Discussion Paper *AIDS: A Time to Care, A Time to Act — Towards a Strategy for Australians* in November 1988. To date the majority of National Strategy Recommendations have been, or are in the process of being implemented.

The Strategy is coordinated at the national level by the Aids Policy and Programs Branch of the Commonwealth Department of Health, Housing and Community Services. An evaluation of the Programs outlined and funded through the National Strategy is being undertaken jointly by the Commonwealth and States. The Branch has the responsibility for coordinating and evaluating community AIDS projects, assessing the funding of these initiatives, and undertaking liaison with a wide range of Australian and overseas agencies. In addition, the Department closely monitors medical and scientific developments in relation to the disease. It also provides executive support for national AIDS Committees which have been established to consider and advise on all aspects of AIDS, including the Australian National Council on AIDS (ANCA), the Parliamentary Liaison Group on AIDS, and the Intergovernmental Committee on AIDS.

In 1990–91 the Commonwealth made available approximately $78 million for the fight against AIDS. The expenditure was divided between the National AIDS Program ($24 million), the AIDS Matched Funding Program ($24 million) and Medicare payments to the States ($30 million).

The Commonwealth has allocated approximately $88 million to the AIDS program in 1991–92. Over $28 million is earmarked for the National AIDS Program and approximately $22 million will be made available under the Matched Funding Program. The Commonwealth has continued assistance to maintain the safety of our blood supply by supporting the screening of blood transfusion services throughout Australia. A further $35 million will be paid to the States and Territories under the Medicare arrangements for the treatment of HIV/AIDS in public hospitals. This component will be indexed to the actual growth of AIDS cases treated.

Activities under the National AIDS Program include research, the national AIDS education campaign, grants to community-based organisations and to develop educational resources for health care workers, exchange of information both within Australia and internationally and support of national AIDS advisory committees.

The third National Centre, the National Centre in HIV Social Research was established in 1990. The purpose of this Centre is to conduct and coordinate research into the effects of the epidemic, to identify educational and training needs and to evaluate specific social aspects of transmission and the impact of education and prevention programs and policy initiatives.

Australia's contribution to the WHO global program on AIDS has been a total of $2 million spread over the past three years.

Australia has moved to increase its international activity in AIDS programs, through direct bilateral programs in our region. The National Strategy, through the Australian International Development Assistance Bureau, has established a short-term program of support for regional education and community development.

REPORTED AIDS CASES TO 30 JUNE 1991

	NSW	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Total*
Number of cases									
Males	1,615	531	190	89	116	14	7	35	2,597
Females	48	12	8	3	8	1	—	1	81
Known deaths									
Number	1,065	322	131	44	77	8	3	22	1,672
Per cent of cases	63.7	19.3	7.8	2.6	4.6	0.5	0.2	1.3	100.0

Source: Australian HIV Surveillance Report.

CASES OF AIDS AND KNOWN DEATHS FROM AIDS BY TRANSMISSION CATEGORY TO 30 JUNE 1991

	Cases				*Known deaths*			
Transmission category	*Males*	*Females*	*Total*	*Per cent of all cases*	*Males*	*Females*	*Total*	*Per cent of cases by category*
Homo-bisexual	2,317	—	2,317	86.5	1,457	—	1,457	87.1
Homo-bisexual IDU(a)	66	—	66	2.5	42	—	42	2.5
Heterosexual contact	27	20	47	1.8	6	9	15	0.9
Heterosexual IDU(a)	25	16	41	1.5	12	7	19	1.1
Haemophilia	39	—	39	1.5	25	—	25	1.5
Blood transfusion(b)	44	34	78	2.9	33	32	65	3.9
Other/undetermined	63	6	69	2.6	35	1	36	2.1
Children under 13								
Mother to child	3	4	7	0.3	—	3	3	0.2
Haemophilia	4	—	4	0.1	2	—	2	0.1
Blood transfusion	9	1	10	0.4	8	—	8	0.5
Total	**2,597**	**81**	**2,678**	**100.0**	**1,620**	**52**	**1,672**	**100.0**

(a) Intravenous drug user. (b) Includes receipt of blood products or tissue.

Source: Australian HIV Surveillance Report.

Employment injuries

The National Occupational Health and Safety Commission (Worksafe Australia) is giving the highest priority in the development of suitable national statistics on work injuries to the implementation of the National Data Set for Compensation-based Statistics (NDS). The NDS recommends a standard set of data items to be collected via the compensation based collections administered by State/Territory and Commonwealth agencies. It will be substantially implemented in respect of 1991–92 data but full implementation is not expected until July 1992. The Type of Occurrence Classification System, which was developed as part of the NDS, for use in coding details of workers' compensation cases, was released in 1991.

Causes of death

Information relating to crude death rates and life expectancy is contained in the chapter, Demography.

All ages

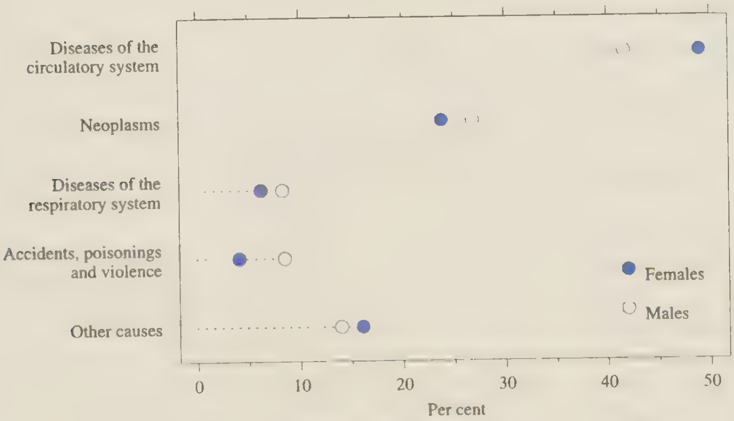
Causes of death in Australia are classified according to the Ninth Revision of the International Classification of Diseases (ICD) produced by the WHO. The statistics in the table below show the number of deaths registered during 1990, classified to broad groupings of causes of death.

The major causes of death in the community in 1990 were diseases of the circulatory system (accounting for 45.2%), neoplasms (25.6%), diseases of the respiratory system (7.5%) and accidents, poisonings and violence (6.6%). In 1990, fewer than one per cent of all deaths were due to infections and parasitic diseases.

The relative importance of groups of causes of death varies with age. Diseases of the circulatory system and neoplasms are predominant in middle and old age. Accidents, particularly those involving motor vehicles, are the primary cause of death in childhood and early adulthood. The majority of infant deaths (59.4% in 1990) occur within less than 28 days of birth.

As well as differing by age, the relative significance of certain causes of death also varies by sex, as illustrated below.

CAUSES OF DEATH: PERCENTAGE DISTRIBUTION, 1990



Source: *Causes of Death, Australia (3303.0).*

CAUSES OF DEATH IN EACH AGE GROUP, 1990

	Age group (years)									
Causes of death	*<1*	*1–14*	*15–24*	*25–34*	*35–44*	*45–54*	*55–64*	*65–74*	*>74*	*Total (a)*
					NUMBER					
Infectious and parasitic diseases	27	25	21	32	49	52	75	147	374	803
Neoplasms	12	131	147	374	1,112	2,498	5,923	9,462	11,084	30,744
Endocrine, nutritional and metabolic diseases and immunity disorders	10	29	40	159	176	182	386	751	1,434	3,167
Diseases of the nervous system and sense organs	42	66	66	76	69	110	170	422	1,247	2,268
Diseases of the circulatory system	13	27	89	202	621	1,751	5,124	12,399	34,059	54,285
Diseases of the respiratory system	49	37	56	60	111	244	890	2,405	5,147	9,001
Diseases of the digestive system	7	11	7	63	162	290	557	896	2,100	4,094
Congenital anomalies	537	93	45	33	25	22	25	34	26	840
All other diseases(b)	897	11	104	213	141	144	329	803	3,470	6,112
Signs, symptoms and ill-defined conditions	501	17	18	17	22	25	25	30	154	813
Accidents, poisonings and violence	50	444	1,596	1,445	1,039	712	707	688	1,252	7,935
All causes	**2,145**	**891**	**2,189**	**2,674**	**3,527**	**6,030**	**14,211**	**28,037**	**60,347**	**120,062**
					RATE(c)					
Infectious and parasitic diseases	10	1	1	1	2	3	5	13	50	5
Neoplasms	5	4	5	13	43	138	406	821	1,472	180
Endocrine, nutritional and metabolic diseases and immunity disorders	4	1	1	6	7	10	26	65	190	19
Diseases of the nervous system and sense organs	16	2	2	3	3	6	12	37	166	13
Diseases of the circulatory system	5	1	3	7	24	97	351	1,076	4,524	318
Diseases of the respiratory system	19	1	2	2	4	13	61	209	684	53
Diseases of the digestive system	3	(d)	(d)	2	6	16	38	78	279	24
Congenital anomalies	204	3	2	1	1	1	2	3	3	5
All other diseases(b)	342	(d)	4	8	5	8	23	70	461	36
Signs, symptoms and ill-defined conditions	191	(d)	1	1	1	1	2	3	20	5
Accidents, poisonings and violence	19	13	58	51	40	39	48	60	166	46
All causes	**817**	**26**	**79**	**95**	**137**	**333**	**974**	**2,433**	**8,015**	**703**
					PERCENTAGE(e)					
Infectious and parasitic diseases	1.3	2.8	1.0	1.2	1.4	0.9	0.5	0.5	0.6	0.7
Neoplasms	0.6	14.7	6.7	14.0	31.5	41.4	41.7	33.7	18.4	25.6
Endocrine, nutritional and metabolic diseases and immunity disorders	0.5	3.3	1.8	5.9	5.0	3.0	2.7	2.7	2.4	2.6
Diseases of the nervous system and sense organs	2.0	7.4	3.0	2.8	2.0	1.8	1.2	1.5	2.1	1.9
Diseases of the circulatory system	0.6	3.0	4.1	7.6	17.6	29.0	36.1	44.2	56.4	45.2
Diseases of the respiratory system	2.3	4.2	2.6	2.2	3.1	4.0	6.3	8.6	8.5	7.5
Diseases of the digestive system	0.3	1.2	0.3	2.4	4.6	4.8	3.9	3.2	3.5	3.4
Congenital anomalies	25.0	10.4	2.1	1.2	0.7	0.4	0.2	0.1	(f)	0.7
All other diseases(b)	41.8	1.2	4.8	8.0	4.0	2.4	2.3	2.9	5.8	5.1
Signs, symptoms and ill-defined conditions	23.4	1.9	0.8	0.6	0.6	0.4	0.2	0.1	0.3	0.7
Accidents, poisonings and violence	2.3	49.8	72.9	54.0	29.5	11.8	5.0	2.5	2.1	6.6
All causes	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

(a) Total includes 11 deaths where age is not known. (b) Includes 901 deaths from conditions originating in the perinatal period and 1,888 deaths from diseases of the genitourinary system (c) Rates are per 100,000 of population at risk, except for children under one year of age which are per 100,000 live births registered. (d) Less than 0.5. (e) Percentage of all deaths within each age group (f) Less than 0.05.

Source: Causes of Death, Australia (3303.0).

Perinatal deaths

Since deaths within less than 28 days of birth (neonatal deaths) are mainly due to conditions originating before or during birth, and the same conditions can cause fetal death (stillbirth), special tabulations are prepared combining the two. These are termed 'perinatal deaths'. The statistical definition of perinatal deaths in Australia was amended in 1979 from that previously used, in accordance with a recommendation of the Ninth Revision Conference (1975) of the WHO 'that national perinatal statistics should include all fetuses and infants delivered weighing at least 500 grams (or, when birth-weight is unavailable, the corresponding gestational age (22 weeks) or body length (25 cm crown–heel)), whether alive or dead'. The table below incorporates a further recommendation of the Conference in that it shows the number of fetal, neonatal and total perinatal deaths in Australia classified by both the main condition in the fetus/infant and the main condition in the mother.

The perinatal death rate for Australia increased from 9.95 per 1,000 total births in 1989 to 10.27 in 1990.

Of the conditions in the child, the three main groups responsible for perinatal deaths were *Hypoxia, birth asphyxia and other respiratory conditions* (36.4% of the total), *Other conditions originating in the perinatal period* (25.7%) and *Congenital anomalies* (20.8%). 41 per cent of all perinatal deaths did not mention any condition in the mother as contributing to the death. Where maternal conditions were reported, 27.6 per cent of all perinatal deaths were reported as being due to *Complications of placenta, cord and membranes.*

PERINATAL DEATHS BY CAUSE, 1990

	Number of deaths			*Rate*		
Cause of death	*Fetal*	*Neonatal*	*Perinatal*	*Fetal(a)*	*Neonatal (b)*	*Perinatal (a)*
Conditions in fetus/infant						
Slow fetal growth, fetal malnutrition and immaturity	100	138	238	0.38	0.53	0.90
Birth trauma	3	27	30	0.01	0.10	0.11
Hypoxia, birth asphyxia and other respiratory conditions	666	322	988	2.52	1.23	3.74
Fetal and neonatal haemorrhage	34	80	114	0.13	0.30	0.43
Haemolytic disease of fetus or newborn	9	4	13	0.03	0.02	0.05
Other conditions originating in the perinatal period	583	113	696	2.21	0.43	2.64
Congenital anomalies	183	381	564	0.69	1.45	2.14
Infectious and parasitic diseases	6	3	9	0.02	0.01	0.03
All other causes	6	54	60	0.02	0.21	0.23
Conditions in mothe						
Maternal conditions which may be unrelated to present pregnancy	221	108	329	0.84	0.41	1.25
Maternal complications of pregnancy	158	321	479	0.60	1.22	1.81
Complications of placenta, cord and membranes	604	144	748	2.29	0.55	2.83
Other complications of labour and delivery	32	23	55	0.12	0.09	0.21
No maternal condition reported	575	526	1,101	2.18	2.00	4.17
All causes						
1990	1,590	1,122	2,712	6.02	4.27	10.27
1989	1,451	1,058	2,509	5.75	4.22	9.95
1988	1,473	1,164	2,637	5.95	4.73	10.65
1987	1,432	1,159	2,591	5.84	4.75	10.56
1986	1,585	1,227	2,812	6.47	5.04	11.48

(a) Per 1,000 births registered (live births and stillbirths) weighing 500 grams or more at birth. (b) Per 1,000 live births registered weighing 500 grams or more at birth.

Source: Causes of Death, Australia (3303.0).

HOSPITALS

Repatriation hospitals and institutions

Details of repatriation hospitals, institutions and other facilities are given in the chapter, Social Security and Welfare.

Mental health institutions

The emphasis has shifted from institutions for care of patients certified insane to a range of mental health services provided for in-patients and out-patients at psychiatric hospitals, admission and reception centres, day hospitals, out-patient clinics, training centres, homes for the mentally ill and geriatric patients, psychiatric units in general hospitals, and the like. The presentation of meaningful statistics of mental health services has become increasingly difficult because of a shift since the 1970s away from institutional care of mental patients. Statistics relating to mental health institutions are available from relevant agencies in most States.

Hospital statistics

A major factor in the cost of health care in Australia is hospital treatment of patients. Attempts to measure the number of in-patients treated and bed-days involved for each disease or injury have been going on for some years, but as coverage is incomplete it is not possible to present national statistics. Figures for New South Wales, Victoria, Queensland, and South Australia however, are published in the ABS publications *Hospital In-patients New South Wales* (4306.1), *Public Hospital Morbidity Victoria* (4301.2), *Hospital Morbidity Queensland* (4303.3) and *In-patient Separations from Recognised Hospitals South Australia* (4308.4) (ABS/SAHC). Statistics for Western Australia, the Northern Territory and the Australian Capital Territory are available from the relevant State and Territory health authorities.

In 1992, the Australian Bureau of Statistics plans to introduce a new national statistical collection to obtain information on facilities, activities, staffing and expenses from all private hospitals in Australia. The first collection will be for the 1991–92 financial year. This information will contribute to the first comprehensive set of national statistics relating to hospitals. The collection is based on the National Minimum Dataset for Institutional Health Care developed by the Australian Institute of Health through the Australian Health Ministers' Advisory Council.

HEALTH INSURANCE AND BENEFITS

Medicare

Details of the health financing arrangements under the Medicare program introduced by the Commonwealth Government in February 1984 are available in *Year Book Australia 1984.*

The Medicare levy was increased from one per cent to 1.25 per cent of taxable income on 1 December 1986.

From 1 July 1991 no levy is payable by single people earning less than $11,745 per annum or by sole parents and married couples with combined income of less than $19,674 per annum, with a further $2,100 per annum allowed for each dependent child.

'Shading-in' arrangements apply in respect of persons with taxable incomes marginally above the threshold.

Medicare benefits

The Health Insurance Act provides for a Medicare Benefits Schedule which lists medical services and a schedule fee applicable in respect of each medical service. The Schedule covers services attracting Medicare benefits rendered by legally qualified medical practitioners, certain prescribed services rendered by approved dentists and optometrical consultations by optometrists. Medical services in Australia are generally delivered by either private medical practitioners on a fee-for-service basis, or medical practitioners employed in hospitals and community health centres. The Schedule is constantly being reviewed through ongoing consultation with the medical profession and it is updated twice yearly to reflect current medical practice.

Medicare benefits are payable at the rate of 85 per cent of the schedule fee services except those to hospital in-patients and for out-of-hospital general practice attendances.

For medical services rendered to private in-patients in hospitals or day-hospital facilities, the level of Medicare benefit is 75 per cent of the schedule fee for each item with no maximum patient gap. The private health insurance funds cover the remaining 25 per cent (i.e., up to the level of the schedule fee) for insured patients.

Fee-for-service rebates are paid at differential rates if a medical practitioner has been recognised by the Minister for Community Services and Health as a specialist or consultant physician (or psychiatrist) and the patient has been referred by another practitioner. Similar arrangements apply to general practitioners who are vocationally registered.

Currently, Australia has reciprocal health care agreements with the United Kingdom, New Zealand, Italy, Sweden, Malta and the Netherlands whereby Australian visitors to those countries, and from those countries to Australia, are entitled to access the host country's public health system for immediately necessary medical and hospital treatment.

In 1990–91 claims associated with 147 million services were processed by the Health Insurance Commission involving benefit payments of $4,238 million. Summary statistics on benefits paid for medical services are provided below.

MEDICARE: NUMBER OF SERVICES, BENEFITS PAID AND PERCENTAGE OF SERVICES DIRECT BILLED, 1990–91

	NSW	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*O'seas*	*Aust.*
					— '000 —					
Number of services	56,328	35,178	24,817	11,862	12,008	3,533	840	2,039	12	146,616.7
					— $ million —					
Benefits paid	1,633.0	1,019.5	713.7	351.4	338.6	98.9	23.1	59.9	0.3	4,238.4
					— per cent —					
Direct billed	65.6	55.1	62.9	56.1	60.6	49.8	64.6	46.7	46.2	60.8

Source: Commonwealth Department of Health, Housing and Community Services.

MEDICARE BENEFITS BY BROAD TYPE OF SERVICE, 1990–91
($ million)

Type of service	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*O'seas*	*Aust.*
GP attendances										
VRGP(a)	244.3	143.5	142.5	76.3	48.4	22.5	2.2	13.7	—	693.4
Non-VRGP	352.5	233.8	121.5	55.5	76.9	17.3	5.9	8.9	0.1	872.3
Other GP	19.9	15.7	10.2	9.3	6.4	1.6	0.2	0.6	—	64.0
Total	*616.7*	*393.0*	*274.3*	*141.1*	*131.7*	*41.5*	*8.4*	*23.2*	*0.1*	*1,629.7*
Specialist attendances	249.8	172.1	96.1	59.9	44.5	14.1	2.2	8.9	—	647.5
Obstetrics	21.0	16.7	8.3	4.5	5.6	1.7	0.6	1.3	—	59.5
Anaesthetics	29.3	24.1	13.7	7.8	6.8	2.2	0.4	1.2	—	85.5
Pathology	251.5	134.7	121.8	42.6	52.6	13.9	5.3	8.5	0.1	630.9
Diagnostic imaging	218.5	122.3	83.9	40.4	46.2	10.9	3.0	8.0	—	533.3
Operations	154.0	101.7	78.1	36.3	32.5	9.3	2.0	5.6	—	419.6
Assistance at operations	5.3	4.7	3.9	2.4	0.7	0.2	0.1	0.2	—	17.5
Radio and nuclear med. therapy	6.6	3.3	2.0	1.5	1.3	0.4	—	0.3	—	15.5
Optometry	36.5	22.8	16.3	7.4	8.5	2.8	0.8	1.5	—	96.7
Miscellaneous	43.8	24.1	15.2	7.6	8.3	1.8	0.3	1.4	—	102.4
Total	**1,633.0**	**1,019.5**	**713.7**	**351.4**	**338.6**	**98.9**	**23.1**	**59.9**	**0.3**	**4,238.0**

(a) Vocationally Registered General Practitioners.
Source: Commonwealth Department of Health, Housing and Community Services.

Hospital benefits

From 1 February 1984, basic public hospital services have been provided free of charge. Under Medicare, in-patient accommodation and care in a shared ward by a doctor employed by a public hospital are provided free of charge, together with a range of casualty and out-patient services. The scheme does not cover hospital charges for private accommodation in a public hospital, private hospital treatment, nor care in a public hospital by a doctor of the patient's choice. It is possible, however, for persons to take out hospital insurance with registered health benefits organisations to cover these situations and Medicare benefits are available for private medical practitioners' charges in respect of those medical services provided in hospital.

Patients who are accommodated in either private or public hospitals for continuous periods in excess of 35 days and who have not been certified as acute care patients, are in essence nursing home-type patients and are required to make a statutory non-insurable patient contribution in the same way that a patient in a nursing home does. For a private nursing home-type patient in a public hospital, fees are reduced and hospital benefits paid by registered health benefits organisations are decreased accordingly. These patients are also required to make the patient contribution. In a private hospital, the benefits are reduced to $100 a day, less the amount of the patient contribution. Any charges by private hospitals in excess of available benefits plus the statutory patient contribution become the responsibility of the patient.

Where a patient's doctor considers that a patient has continuing need of acute care, the doctor may issue a certificate under section 3B of the Health Insurance Act to that effect, and the nursing home-type patient arrangements do not apply. The arrangements also provide for a review mechanism in the form of the Acute Care Advisory Committee which, when requested (e.g., by a private health fund) to do so, may review such certificates and recommend that they be varied or revoked.

Since 1 October 1986 basic health insurance benefits for patients in private hospitals have been structured according to a system of patient classification. Under this system, basic health insurance benefits are set to more appropriately relate hospital costs to the actual medical needs (i.e., complexity of service) of patients. Initially there were three classification groupings: advanced surgical, surgical/obstetric and other (medical) patients. These groupings were expanded from 1 March 1987 to include psychiatric and rehabilitation patients. Additional supplementary health insurance benefits for higher private hospital charges are similarly orientated towards the patient classification model.

Health insurance coverage

Surveys about the levels and types of private health insurance cover in the Australian community have been conducted for the years 1979–84, 1986, 1988 and 1990. The 1984 survey covered employed wage and salary earners in capital cities only.

Results of the June 1990 survey showed that 52.0 per cent of the population was covered by private health insurance, with 47.7 per cent covered for hospital expenses and 41.9 per cent for expenses associated with ancillary services such as dental, physiotherapy and ambulance. However, as shown below the proportion covered and the types of cover held differed markedly according to the type of contributor unit to which the persons belonged.

CONTRIBUTORS: COMPOSITION OF UNIT(a) BY TYPE OF PRIVATE HEALTH INSURANCE JUNE 1990

	With private health insurance						
Composition of contributor unit	*Hospital and ancillary*	*Hospital only*	*Ancillary only*	*Type of insurance not known*	*Total*	*Without private health insurance*	*Total*
			— '000 —				
Contributor only	1,117.2	365.3	124.1	39.0	1,645.5	2,568.6	4,214.2
Contributor and dependant children	188.7	23.8	30.7	18.4	261.5	824.2	1,085.7
Contributor and partner only	1,383.5	460.7	97.8	19.7	1,961.7	1,631.3	3,593.0
Contributor, partner and dependant children	3,868.9	772.0	376.2	30.9	5,048.0	3,196.2	8,244.2
Total(b)	**6,558.3**	**1,621.7**	**628.8**	**108.0**	**8,916.7**	**8,220.4**	**17,137.1**
			— per cent —				
Contributor only	26.5	8.7	2.9	0.9	39.0	61.0	100.0
Contributor and dependant children	17.3	2.2	2.8	1.7	24.1	75.9	100.0
Contributor and partner only	38.5	12.8	2.7	0.5	54.6	45.4	100.0
Contributor, partner and dependant children	46.9	9.4	4.6	0.4	61.2	38.8	100.0
Total(b)	**38.3**	**9.5**	**3.7**	**0.6**	**52.0**	**48.0**	**100.0**

(a) A contributor unit consists of a contributor plus all persons in the same family who are covered by the health insurance arrangements of the contributor. The term also applies to those families or members within families not covered by private health insurance. (b) Includes dependant members or contributor units reporting single rate insurance who were not therefore covered by that insurance and are not included elsewhere in the table.

Source: Health Insurance Survey, Australia (4335.0).

COMPARISON OF NUMBER OF PERSONS WITH PRIVATE HEALTH INSURANCE 1983 TO 1990

	March 1983	*March 1986*	*June 1988*	*June 1990*
		— '000 —		
With private health insurance	9,671.1	8,208.1	8,302.1	8,916.7
Without private health insurance	4,904.9	7,170.1	7,650.9	8,220.4
Total(a)	**14,781.2**	**15,457.2**	**15,967.4**	**17,160.2**
		— per cent —		
With private health insurance	65.4	53.1	52.0	52.0
Without private health insurance	33.2	46.4	47.9	47.9
Total(a)	**100.0**	**100.0**	**100.0**	**100.0**

(a) Includes persons for whom insurance details were unknown.

Source: Health Insurance Survey, Australia (4335.0).

Pharmaceutical Benefits Scheme (PBS)

The Scheme was established under the provisions of the *National Health Act 1953* and provides a large range of drugs and medicinal preparations. These can be prescribed by medical and dental practitioners for Australian residents. The medicines can be dispensed by an approved pharmacist upon presentation of a prescription.

Depending on the circumstances, the patient may pay as little as $2.60, and should pay no more than $15.70, for the same medicine. (These figures are adjusted for inflation once a year.)

If the patient is a pensioner or other client of either the Department of Social Security, or the Department of Veterans' Affairs they should have one of the following approved concession cards:

- Pensioner Health Benefits Card;
- Health Benefits Card;
- Pharmaceutical Benefits Concession Card;
- Health Care Card; and
- Veterans' Affairs Lilac or Red Cards.

These cards entitle the pensioner to pay no more than $2.60 for each prescription item. A compensatory payment of $2.60 per week is added to the pension to cover this cost.

There is a safety net limit on payments for PBS medicines. It is especially designed for people who are chronically ill and for families who have a lot of unexpected sickness in a particular year.

The safety net limit varies according to the patient's circumstances, but for most families it is $350 each calendar year. (This figure is adjusted for inflation at the beginning of each calendar year.) Once the patient or his/her immediate family has spent $300 on PBS medicines in a year, they need only pay $2.60 for additional PBS items. When they have spent another $50 in this way they will be able to get PBS medicines free for the rest of the calendar year.

If the patient holds one of the special concession cards listed earlier, the safety net limit is $130 per calendar year similarly adjusted for inflation. When the patient has spent $130 on PBS medicines for themselves or his/her dependants they can get further PBS medicines free for the rest of the year.

In 1990–91, the total cost of the PBS, including patient contribution of prescriptions processed for payment, was $1,315 million. This figure does not include the cost of drugs supplied through special arrangements, such as the Royal Flying Doctor Service, methadone maintenance programs and hormone treatment programs.

BENEFIT PRESCRIPTIONS AND COST OF MORE FREQUENTLY PRESCRIBED DRUG GROUPS 1990–91

	Prescriptions		*Total cost of prescriptions(a)*	
Drug group	*('000)*	*Per cent*	*$'000*	*Per cent*
Anti-asthmatics and anti-bronchitics	9,116	9.65	131,535	10.00
Non-steroidal anti-inflammatory drugs	7,304	7.73	81,835	6.22
Benzodiazepines, sedatives and hypnotics	6,498	6.88	30,577	2.32
Antihypertensives	6,194	6.56	194,377	14.78
Penicillins	5,449	5.77	68,423	5.20
Beta-blockers	4,257	4.51	46,585	3.54
Anti-anginals	4,177	4.42	79,096	6.01
Diuretics	3,574	3.78	35,458	2.70
Anti-depressants	3,247	3.44	21,349	1.62
Non-narcotic analgesics	3,243	3.43	18,624	1.42
Water, salts and electrolytes	2,517	2.66	18,274	1.39
Topical corticosteroids	2,270	2.40	13,266	1.01
Narcotic analgesics	2,013	2.13	13,146	1.00
Oral contraceptives	1,931	2.04	22,115	1.68
Tetracyclines	1,830	1.94	16,569	1.26
Antacids	1,739	1.84	13,203	1.00

For footnotes *see* end of table.

BENEFIT PRESCRIPTIONS AND COST OF MORE FREQUENTLY PRESCRIBED DRUG GROUPS 1990–91 — *continued*

	Prescriptions		Total cost of prescriptions(a)	
Drug group	*'000*	*Per cent*	*$'000*	*Per cent*
Drugs for gastric and duodenal ulcers	1,709	1.81	73,520	5.59
Anti-emetics	1,655	1.75	9,360	0.71
Eye anti-irritants and anti-allergics	1,512	1.60	10,520	0.80
Other eye preparations	1,498	1.59	15,661	1.19
Topical antifungals	1,287	1.36	7,972	0.61
Anti-hyperlipidaemics	1,230	1.30	49,765	3.78
Sulphonamides and urinary antiseptics	1,182	1.25	10,052	0.76
Other sex hormones	1,163	1.23	22,548	1.71
Other anti-diabetics	1,102	1.17	14,551	1.11
Cephalosporins	1,017	1.08	11,012	0.84
Systemic corticosteroids	1,016	1.07	9,229	0.70
Other drug groups	14,755	15.62	276,768	21.04
Total	**94,484**	**100.00**	**1,315,389**	**100.00**

(a) Includes patients' contributions. Excludes government expenditure on miscellaneous items. Excludes prescriptions for extemporaneously prepared items.

Source: Commonwealth Department of Health, Housing and Community Services.

NATIONAL HEALTH STRATEGY

The Minister for Health, Housing and Community Services, announced the establishment of the National Health Strategy on 21 August 1990. The aim of the strategy is to refine and improve Medicare, deal with pressures in the health system, and combat future problems.

The strategy's terms of reference cover:

- the distribution of health costs and their impact on individuals and families;
- factors creating demand for medical services, and options to contain costs at reasonable levels;
- identification of the causes of the increasing demand for and costs of hospital services and of options to contain demand and cost while maintaining accepted standards of quality and access;
- the role of the private sector, particularly private hospitals and private health insurance, in relation to Medicare and the Australian health care delivery system;
- methods to stimulate an increased focus on preventive services and integrate them with community services and hospital and medical services;
- service delivery systems that better integrate health and community services;
- the effect of current financial and organisational arrangements on effective health care delivery; and
- the balance between supply and demand for health workers.

The strategy is exploring the arrangements under which health services are funded by a variety of measures involving the Commonwealth Government, State and Territory Governments, private health insurance and patient contributions. In particular, the strategy is examining how fragmentation of responsibility, uncertainty due to artificial boundaries, historical arrangements, and undefined roles between the Commonwealth, the States and Territories, and the public and private sectors have hindered efficient health care planning and delivery.

The strategy will be developed over two years and will report progressively to the Government.

COMMONWEALTH GOVERNMENT SUBSIDIES AND GRANTS TO ORGANISATIONS

The Commonwealth Government gives financial assistance to certain organisations concerned with public health. Examples of organisations included in this category are outlined below.

Commonwealth Government funding of hospitals

In 1990–91 hospital funding grants by the Commonwealth Government, totalling $3,617 million to the States and Territories, provided $3,542 million for hospital and related services; $41 million for incentives in the areas of post-acute and palliative care and day surgery procedures; $29 million towards hospital care for AIDS patients; and $4 million to enable the development of a case mix based system as a management information system and potentially as a prospective payment system.

Homeless youth

The Innovative Health Services for Homeless Youth Program was established in 1989 as part of the $100 million strategy 'Towards Social Justice for Young Australians'. The Program develops and implements innovative primary health care services for homeless youth in major metropolitan areas. The Commonwealth has allocated $7 million over four years to this program ($14 million when cost shared with States and Territories).

Emphasis is being placed on community involvement in service delivery, and on the coordination of this Program with other Commonwealth and State programs directed at homeless youth.

The ultimate objective of the Program is to encourage a more positive attitude among homeless young people towards their personal health care.

Family planning program

Commonwealth funding is provided to approved non-government organisations to assist them to provide clinical and non-clinical services associated with family planning. Eligible activities may include medical practitioner and nursing services; training of health professionals in family planning techniques; counselling services for clients; preparation and dissemination of information and publicity; seminars; conferences; and research. The Commonwealth allocation for family planning in 1991–92 will be $13.9 million.

Women's health

In addition to the following, the section on the national health survey earlier in this chapter contains statistics on certain women's health issues.

National Women's Health Program

This Program, which commenced in 1989–90, is a four year, $33.7 million program which aims to improve the health and well-being of all women in Australia with a focus on those most at risk, and to encourage the health system to be more responsive to the health needs of women. The Program is cost shared with the States and Territories on a dollar for dollar basis. The Program provides funding to the following components: improvements in health services for women, establishment of an information and education strategy and for the provision of training and education on women's health issues for health care professionals.

Alternative Birthing Services Program

In recognition of increased community desire for greater choice in birthing services, the Commonwealth introduced a $6.4 million four year incentive package in 1989–90 to assist States and Territories to provide a range of alternative birthing services.

Women's Health Services (Rural) Program

$0.4 million has been provided over three years, 1989–92, to enable Frontier Services in conjunction with the Royal Flying Doctor Service to develop a program to improve access to health services for women in western New South Wales, south-west Queensland and north-west Western Australia.

National Program for the Early Detection of Breast Cancer

In 1990, the Commonwealth Government committed $64 million in the first three years of the program to be implemented over five years. The goal of the program is to reduce mortality and morbidity from breast cancer which is a major cause of death amongst women.

A national network of dedicated and accredited breast cancer screening and assessment services is being established within each participating State or Territory to provide screening to women over 40 years of age.

Following a start-up phase in which the Commonwealth provided $11.4 million to establish or expand screening services, the Program will be cost shared equally between the Commonwealth Government and State/Territory Governments.

National Health Promotion Program

Under the National Health Promotion Program (NHPP), the Commonwealth provides funding for projects which develop and promote effective strategies for health promotion and disease prevention, focusing on special risk factors and different population groups.

Projects funded under NHPP must be national in application and focus and be consistent with national health goals. Projects funded in 1990–91 included the development of a post-graduate health promotion course and prevention of falls and musculoskeletal injuries among older adults. Other projects focused on asthma, diabetes, dental disease and targeted people from non-English speaking backgrounds, children and adolescents and the socially disadvantaged.

Funds appropriated to this program during 1990–91 amounted to $1.7 million.

National Better Health Program

The National Better Health Program (NBHP) is a health promotion program currently being implemented across Australia by the Commonwealth Government, State and Territory Governments.

The current NBHP agreement began in July 1988 and will run to June 1992. The funds are cost shared between the Commonwealth and States/Territories and total $39 million over the four years of the Program. In the first four years it has focused on action in five priority areas:

- injury;
- hypertension;
- health of the elderly;
- nutrition; and
- preventable cancers.

The Program is aiming to develop innovative projects and strategies in the five priority areas which can be used by States/Territories and community organisations as model intervention programs.

Royal Flying Doctor Service

The Royal Flying Doctor Service is a non-profit organisation providing medical and emergency evacuation services in remote areas of Australia. It is distinct from, but coordinates with, the Aerial Medical Service which is operated by the Northern Territory Government. The Royal Flying Doctor Service is financed mostly from donations and government contributions. For the year ended 30 June 1991 the Commonwealth Government paid grants totalling $10.7 million towards operational costs and assistance of $1.8 million towards an approved program of capital expenditure.

Red Cross Blood Transfusion Service

This service is conducted by the Australian Red Cross Society throughout Australia. The operating costs of the service in the States and Territories are met by the State or Territory Government paying 60 per cent, the Society five per cent of donations, and the Commonwealth Government meeting the balance. Approved capital expenditure by the service is shared on a dollar for dollar basis with the State and Territory Governments. Commonwealth Government expenditure for all States and Territories during 1990–91 was $29.7 million being $26.7 million for operating costs and $3.0 million for capital costs.

National Heart Foundation of Australia

The Foundation is a voluntary organisation, supported almost entirely by public donations, established with the objective of reducing the toll of heart disease in Australia. It approaches this objective by programs sponsoring research in cardiovascular disease, community and professional education directed to prevention, treatment and rehabilitation of heart disease and community service programs including rehabilitation of heart patients, risk assessment clinics and surveys and documentation of various aspects of heart disease and treatment of heart disease in Australia.

The Foundation's income in 1990 was $25.9 million of which $19.9 million was from public donations and bequests. Commonwealth, State and semi-government authorities made grants of $0.6 million for specific projects conducted by the Foundation. Since the inception of the Foundation, research has been a major function and a total of $5.4 million was expended in 1990 in grants to university departments, hospitals and research institutes and for fellowships tenable in Australia and overseas. It is notable however that with increasing opportunities for prevention and control of heart disease, the Foundation's education and community service activities are increasing significantly. In 1990 the expenditure on research, education and community service totalled $10.8 million.

In 1989 the National Heart Foundation repeated its 1980 and 1983 surveys of risk factor prevalence in Australia. The 1989 Risk Factor Prevalence Survey asked over 9,000 randomly selected adults aged 20 to 69 living in Australian capital cities about factors related to heart health, such as exercise, smoking and dietary habits. They also had their weight, blood pressure and blood cholesterol levels checked. The survey was undertaken in collaboration with the Australian Institute of Health and Commonwealth Department of Health, Housing and Community Services. A major analysis of trends in risk factor prevalence over the three surveys is in progress. Copies of the report of the 1989 survey can be obtained from National Heart Foundation offices.

World Health Organization (WHO)

WHO is a specialised agency of the United Nations having as its objective the attainment by all peoples of the highest level of health. Australia is assigned to the Western Pacific Region, the headquarters of which is at Manila, and is represented annually at both the World Health Assembly in Geneva and the Regional Committee Meeting in Manila. Australia's contribution to WHO for 1991 was $US4,782,650.

International Agency for Research on Cancer (IARC)

The IARC was established in 1965 within the framework of the World Health Organization. The headquarters of the agency are located in Lyon, France. The objectives and functions of the agency are to provide for planning, promoting and developing research in all phases of the causation, treatment and prevention of cancer. Australia's contribution to the IARC for 1991 was $US755,639.

NATIONAL HEALTH SERVICES AND ADVISORY ORGANISATIONS

Australian Health Ministers' Conference and the Australian Health Ministers' Advisory Council

The Australian Health Ministers' Conference (AHMC) and its advisory body, the Australian Health Ministers' Advisory Council (AHMAC) provide a mechanism for the Commonwealth Government, and State and Territory Governments to discuss matters of mutual interest concerning health policy, services and programs. Neither the Conference nor the Council has statutory powers, and decisions are reached on the basis of consensus. Their constitution rests on the formal agreement by the Commonwealth Government, and State and Territory Governments of the membership and functions.

The AHMC comprises the Commonwealth, State and Territory Health Ministers. Other Commonwealth Ministers may be invited to speak on items relevant to their portfolio. The New Zealand and Papua New Guinea Health Ministers may attend meetings as observers.

Health services organisations

Australian Radiation Laboratory

The Laboratory is concerned with the development of national policy relating to radiation health and:

- formulates policy by developing codes of practice and by undertaking other regulatory, compliance, surveillance and advisory responsibilities at the national level with respect to public and occupational health aspects of radiation;
- maintains national standards of radiation exposure and radioactivity;
- provides advice in relation to the quality and use of radio-pharmaceutical substances; and
- in support of the above activities, undertakes research and development in the fields of ionising and non-ionising radiations which have implications for public and occupational health.

Therapeutic Goods Administration

The Therapeutic Goods Administration (TGA) is an organisation within the Department of Health, Housing and Community Services. Its role is to undertake activities with the goal of ensuring that therapeutic goods available in Australia are safe, effective and of high quality. Therapeutic goods include prescription drugs, non-prescription medicines, traditional remedies and all types of medical equipment (therapeutic devices).

TGA monitors the quality of therapeutic goods available in Australia by sampling products for testing and investigating problems and deficiencies. The various laboratories analyse therapeutic goods for acceptable quality and carry out developmental research associated with new or improved testing methods and the development of standards.

In 1990–91 tests were performed on 1,212 products for human use to check compliance with official standards. A total of 170 of these products failed to comply. Investigations were also conducted on 592 reported drug and device problems. These investigations resulted in the recall of 45 drug products and 102 device products.

National Health and Medical Research Council (NHMRC)

The NHMRC advises the Commonwealth Government and State Governments on matters of public health administration and the development of standards and guidelines for pesticides, agricultural chemicals, water and air. It also advises the Commonwealth Government and State Governments on matters concerning the health of the public and on the merits of reputed cures or methods of treatment which are from time to time brought forward for recognition. The objective of the NHMRC is to advise the Australian community on the achievement and maintenance of the highest practicable standards of individual and public health and to foster research in the interests of improving those standards.

The Council has nominees of State and Territory health authorities, professional and scientific colleges and associations, unions, universities, business, consumer groups, welfare organisations, the Commonwealth administration, including the Aboriginal and Torres Strait Islander Commission, and conservation groups. The Council meets twice a year to consider and make decisions on reports from committees and working parties.

The NHMRC funds medical and public health research in Australia and supports many of the medical advances made by Australians. NHMRC is currently funding 948 research projects as well as providing block funding for several major research centres and institutes.

The Council advises the Commonwealth Minister for Health, Housing and Community Services on medical research and on the application of funds from the Medical Research Endowment Fund. NHMRC research funding is on a triennial arrangement. Expenditure for 1990–91 for medical research was $95 million. Funds are also appropriated for public health research through the Public Health Research and Development Committee. Expenditure in 1990–91 was $3.7 million. Expenditure on priority research areas for 1991 totalled $1.8 million.

Communicable Diseases Network—Australia

The Communicable Diseases Network—Australia was established in 1990 under the auspices of the National Health and Medical Research Council and the Australian Health Ministers' Advisory Council to enhance the national capability in communicable disease control. The Network's functions include: the collection, analysis and dissemination of surveillance information on communicable diseases, the coordination of responses to epidemic or endemic problems, development of policy recommendations for the NHMRC and AHMAC, and the training of public health professional staff.

Surveillance of communicable diseases is conducted using data derived from four major sources: notifiable diseases surveillance carried out by States and Territories, the Communicable Diseases Intelligence laboratory reporting schemes, reports from sentinel general practices (Australian Sentinel Practice Research Network of the RACGP), and from specialised schemes such as the Central Malaria Register.

Quarantine and inspection

The Australian Quarantine and Inspection Service (AQIS) carries significant health related responsibilities in export inspection and quarantine administration.

Export inspection activities devolve from the *Inspection Export Act 1982.* Inspection covers meat, fish, dairy products, processed foods and vegetables, dried fruit, fresh fruit and vegetables, grains, horticultural and plant products, live animals, and some animal products. It aims at ensuring that exported foodstuffs meet overseas health and food safety requirements where these require official monitoring in the country of origin and that such foods are generally wholesome, fit for consumption and accurately described. It also aims at ensuring inspected products meet overseas quarantine provisions imposed for human, animal and plant health protection. AQIS provides a domestic inspection role for most meat produced for domestic consumption, except production in Queensland and Western Australia, and for dried fruits produced for domestic consumption. The total value of products inspected annually is over $9 billion, exports making up over $8 billion of this.

AQIS' quarantine activities devolve from the *Quarantine Act 1908* and the *Biological Control Act 1984.* Human health quarantine functions are administered on behalf of the Commonwealth Department of Health, Housing and Community Services.

Quarantine activities are contracted to State Departments of Agriculture on the Commonwealth's behalf, and include both monitoring and surveillance elements. Monitoring covers incoming passengers, live animals, cargo and mail as well as incoming ships and aircraft. In summary, it involves clearance of over 4.8 million passengers arriving in Australia each year (growing at an annual rate of 6%) and over 32 million tonnes of sea and air cargo. The discharge of ballast water from overseas shipping, estimated at some 66 million tonnes annually, poses a particular quarantine risk which is subject to specific control arrangements. Imports of biological materials for research, diagnosis and industry are also controlled.

Consignments of all judged high risk imported foods are also subject to food inspection. Since July 1990, AQIS sampled over 2,500 consignments of risk-categorised foods with over 200 failing to meet Australian food safety standards. Principal problems have been microbiological problems in cooked prawns and other crustaceans, molluscs, coconut and black pepper; high aflatoxins levels in peanuts; and heavy metal and pesticide residues in fish, peanuts and seaweed. The results have been used to target problem overseas suppliers and as a basis for negotiation with overseas authorities on possible actions. Where overseas government inspection systems can be shown to provide equivalent safety assurances to Australia's, food accompanied by that agency's certification, entry is allowed without routine testing on arrival. Three such agreements were finalised in 1990–91.

The Australian National Parks and Wildlife Service coordinates and administers with AQIS the introduction and release of biological control agents aimed at combating existing pest and disease problems in Australia under the Biological Control Act.

Quarantine responsibilities include the administration of animal quarantine stations at Sydney, Melbourne, Adelaide and Perth and a high security quarantine station on Cocos (Keeling) Islands, and the supervision of a range of plant quarantine stations, private facilities for both animal and plant quarantine.

AQIS has a significant international involvement in the development of international food safety standards and related additions of hygiene and manufacturing practice by the Joint FAO/WHO Food Standards Program (Codex Alimentarius Commission), and in the development of international plant and animal and plant quarantine and disease control approaches and animal welfare protocols in such international bodies as the Office of International des Epizooties (OIE) and the International Plant Protection Convention (IPPC) and its subsidiary bodies.

Australian Institute of Health (AIH)

The Institute, established in 1987, is a statutory authority within the Health, Housing and Community Services portfolio. It is a Commonwealth health statistics and research agency which, as part of its national role, also provides support to the States and Territories in these areas primarily through the Australian Health Ministers' Advisory Council.

The mission of the Institute is to contribute to the improvement of the health of Australians and to the efficient use of resources in the provision of health services, including those directed at health promotion and illness prevention, by pursuing its legislative mandate to:

- collect and assist in the production of health related information and statistics;
- conduct and promote research into the health of Australians and their health services;
- undertake studies into the provision and effectiveness of health services and technologies; and
- make recommendations on the prevention and treatment of diseases and the improvement and promotion of health and health awareness of the people of Australia.

The Institute also has responsibility for collation, analysis and publication of national welfare services, community services, and housing assistance statistics.

In addition, the Institute has four external units.

The AIH National Injury Surveillance Unit is based in Adelaide with affiliation with Flinders University. The Unit's main role is to improve the availability of statistics relating to injury control and for monitoring the effectiveness of new initiatives.

The AIH National Perinatal Statistics Unit, based at the University of Sydney, collects national data on perinatal health and mortality and on congenital anomalies, conducts epidemiological studies in this field, and operates a register of IVF (in-vitro fertilisation) pregnancies.

The AIH Dental Statistics and Research Unit at the University of Adelaide undertakes statistical collection and research on oral health, the dental labour force and on dental health status.

The AIH National Reference Centre for Classification in Health currently being established at the Queensland University of Technology, is a national resource centre for matters relating to disease classification.

Details of the activities of the Institute are available from its annual reports. The Institute also publishes a biennial report entitled *Australia's Health*.

National Occupational Health and Safety Commission (NOHSC)

The National Commission (known by its working title as *Worksafe Australia*) is a tripartite body comprising representatives of the Commonwealth Government, State and Territory Governments, and peak employee and employer bodies.

It is a statutory authority established by the Commonwealth Government to develop, facilitate and implement national occupational health and safety strategies and to seek the development of national uniform occupational health and safety standards.

NOHSC has specified six priority hazard areas — occupational back pain, noise-induced hearing loss, management of chemicals used at work, occupational skin disorders, occupational cancer and mechanical equipment injuries.

The activities of the organisation include the following:

- the development of national occupational health and safety standards and codes of practice;
- administration of the National Industrial Chemicals Notification and Assessment Scheme;
- national statistical responsibilities in the field of occupational health and safety;
- multidisciplinary research (including epidemiology, biostatistics, occupational psychology, ergonomics and toxicology);
- teaching responsibilities through a Master of Occupational Health and Safety course and several non-academic short courses, symposia and workshops for occupational health and safety practitioners;
- training and education through the development of national skills standards and teaching resource materials, study awards, and by encouraging the inclusion of occupational health and safety training in school and post-secondary courses; and
- the collection, analysis and dissemination of occupational health and safety information services and products.

National Campaign Against Drug Abuse (NCADA)

The National Campaign Against Drug Abuse (NCADA), is a program aimed at minimising the harm caused to Australian society by the misuse of drugs, both licit and illicit.

A feature of the Campaign, and one which differentiates it from previous approaches in Australia and the approach used by a number of other nations, is its focus on both the reduction of the demand for drugs and on the control of drug supply.

The Campaign was launched following the special Premiers' Conference on Drugs in April 1985, when all Governments — Commonwealth, State and Territory — committed themselves to this initiative, involving both the allocation of new financial resources and new ways of addressing drug problems in Australia. The strategy addresses alcohol and other drug problems through a partnership of governments and between the government and non-government sectors.

The Commonwealth contributed $38 million in 1991–92, of which $25.3 million was allocated to the States and Territories which matched it on a dollar for dollar basis, and $12.7 million to national initiatives in the areas of prevention, including The Drug Offensive, data management and research.

During 1991–92, over 380 separate projects were funded under the Commonwealth–State cost sharing arrangements. These projects cover such areas as education, training, residential and non-residential treatment, community development and consultancy, research, evaluation and monitoring.

The range of projects involved reflects the diversity of drug abuse problems in Australia, and the recognition by NCADA of the special needs of groups within the community such as youth, Aboriginal people, prisoners, women, intravenous drug users and people of non-English speaking background.

Information research and evaluation are central parts of the national NCADA activities and include:

- a national media information campaign, 'The Drug Offensive', which is aimed at increasing public awareness of the harm caused by drugs and providing information on them through campaigns such as the pharmaceutical campaign and the young women and smoking campaign;
- provision of almost $6.8 million in support of 118 research projects since 1985;
- establishment of two national centres for drug research — the Commonwealth in 1991–92 allocated $1.7 million per annum to a Sydney-based centre for drug treatment and rehabilitation, and to the Perth-based centre on research into the prevention of drug abuse;
- a National Drug Abuse Data System which aims to provide reliable information on the nature and extent of drug abuse in order to help identify needs, priorities and monitor NCADA's achievements; and
- establishment of a national Centre for Education and Training on Addictions to undertake training and research activities to meet the needs of those involved in the treatment/rehabilitation of people with drug and alcohol addiction problems.

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FOR MORE INFORMATION

The ABS has a far wider range of information on Australia than that contained in the *Year Book*. Information is available in the form of regular publications, electronic data services, special tables and from investigations of published and unpublished data.

For further information contact ABS Information Services at one of the addresses listed on the page facing the Introduction to the *Year Book*.

Chapter Ten

Education

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COMMONWEALTH AND STATE GOVERNMENT RESPONSIBILITIES IN EDUCATION

The Governments of the six Australian States and the two Territories have the major responsibility for education including the administration and substantial funding of primary, secondary and technical and further education. The Commonwealth also plays a significant role in education policy, programs and funding. The total outlay of expenditure on education in 1988–89 was $17,102 million (*see* later section), which represented 5.0 per cent of Gross Domestic Product.

The State Governments administer their own systems of primary, secondary and technical and further education through government departments and agencies responsible to State Ministers. Detailed information on the education systems of the States may be found in the respective State *Year Books*.

The Commonwealth Government has direct responsibility for education in external Territories (Norfolk Island, Christmas Island and the Cocos (Keeling) Islands) under the Minister for the Arts, Sport, the Environment, and Territories — *see* chapter on the Territories of Australia. The Commonwealth Government also has special responsibilities for Aborigines and for migrants, as well as the power to provide assistance for students. Moreover, the Commonwealth Government is responsible for international relations in education. The education responsibilities entail grants to schools; student assistance; overseas students; awards and exchanges; tertiary education; language policy; educational research and statistics; publications; Aboriginal education; multicultural education; Asian and women's studies; and education and the arts.

The Australian Constitution empowers the Commonwealth Government to make grants to the States and to place conditions upon such grants. The Commonwealth Government is principally responsible for the funding of higher education institutions, and provides supplementary funding for schools, and technical and further education. Apart from its significant financial role the Commonwealth is involved in promoting national consistency and coherence in the provision of education across Australia. Further information on Commonwealth government activities is contained later in this chapter.

PRESCHOOL EDUCATION

All States and Territories except Western Australia have a policy of making preschool education available universally for children in the years prior to school entry. A majority of the States and Territories have made considerable progress towards this goal. Most preschools are conducted on a sessional basis (i.e., sessions of two to three hours for two to five days per week). Preschool programs generally favour the free play approach with emphasis on children's social and emotional development through creative activities. Parents often contribute by assisting at some sessions or by the purchase of play materials and educational resources. Attendance fees are not usually charged in those States where preschools are government-run, but in others fees may be payable to private or voluntary organisations.

PRIMARY AND SECONDARY EDUCATION

School attendance is compulsory throughout Australia between the ages of 6 and 15 years (16 years in Tasmania). In 1990 the number of full-time students attending school totalled 3,041,657, comprising 2,193,347 (72.1%) in government schools and 848,310 (27.9%) in non-government schools.

Each State or Territory has its own specific requirements. The majority of children commence primary school at about five years of age. Primary schooling generally begins with a preparatory or kindergarten year, followed by twelve grades to complete a full secondary course of study. While the final two years of schooling generally fall outside the compulsory stage of education, over three-quarters of students remain at school until Year 11 and nearly two-thirds remain until Year 12.

School organisation and operation

Primary schooling provides a general elementary program lasting for seven or eight years until Years 6 or 7. Students enter secondary schools at Year 7 in some State systems and at Year 8 in others. Secondary education is generally comprehensive and coeducational. Most students attend schools reasonably near to their homes. Usually primary and secondary schools are separate institutions, but in some country areas there are area or central schools which provide both forms of schooling. Non-government schools follow a similar pattern, but a significant though declining proportion are single sex institutions. In Tasmania and the Australian Capital Territory, attendance for the final two years of government schooling is at separate secondary colleges.

Generally, schools in Australia have a considerable degree of autonomy. Most State departments have established regional administrations which are responsible for matters such as planning school buildings and deploying staff while a central curriculum unit provides general guidelines on course planning. In general, individual schools determine teaching and learning approaches within the guidelines and offer options within resources available and the attitudes and interests of students. Some systems encourage school-based curriculum development and, in the case of Queensland and the Australian Capital Territory, school-based assessment in place of external examinations. While schools usually have a parents' association, there has been encouragement of greater community participation in general decision making at school level in some systems through parent representation on school councils and boards.

Specialist services and programs provided in schools include educational or vocational counselling by a permanent or visiting teacher; English as a Second Language program by specialist teachers, especially in schools with significant numbers of children from non-English speaking backgrounds (*see* further information in the chapter on Culture); special programs designed to assist Aboriginal school children (including the widespread use of Aboriginal teachers' aides and bilingual education programs in communities where the children's first language is an Aboriginal language); a variety of programs for gifted and talented children; and remedial assistance for children with learning difficulties. The English as a Second Language and the Ethnic Schools Programs are outlined in the chapter, Culture and Leisure.

In primary education the main emphasis is on the development of basic language and literacy skills, simple arithmetic, moral and social education, health training and some creative activities.

In the upper primary years there is development of the skills learned in the earlier years. English, mathematics, social studies, science, music, art and craft, physical education and health are studied. There are also optional subjects such as religious instruction and, in some schools, foreign and community languages and instrumental music.

Students in Australian primary schools usually have only one teacher for all subjects, and are promoted each year on the basis of completing the previous year, rather than on achievement. In schools where open plan learning styles have been adopted, the method of team teaching (more than one teacher to a class) and multi-age grouping of students is often practised.

In secondary education, in some systems, the first one or two years of secondary school consist of a general program which is followed by all students, although there may be some electives. In later years a basic core of subjects is retained with students being able to select additional optional subjects. In other systems, students select options from the beginning of secondary school.

The core subjects in all systems are English, mathematics, science and, usually, a humanities or social science subject. Optional subjects may include, e.g., a foreign language, a further humanities or social science subject, commerce, art, crafts, music, home economics, a manual arts subject, agriculture, physical education or health education. Some schools offer optional courses in subjects such as consumer education, conversational foreign languages, word processing, secretarial studies, road safety, drama and leisure-time activities.

In senior secondary years, a wider range of options is available in the larger schools and there is an increasing trend towards encouraging individual schools to develop courses suited to the needs and interests of their students, subject to accreditation and moderation procedures.

Students in Australian secondary schools generally have different teachers for each separate subject area, though, like primary schools, variations may occur where open planned or more flexible methods have been adopted. Promotion is, again, generally chronological, but students may be grouped according to ability after an initial period in unstreamed classes.

Examinations and assessment at each level are carried out by individual schools except Year 12 in the systems which have retained external examinations at Year 12 level. Students attaining the minimum school leaving age may leave school and seek employment, or enrol in a vocationally oriented course in a TAFE institution or a private business college. For many TAFE courses, completion of Year 10 of secondary school is a minimum entry requirement. For those continuing to the end of secondary school (Year 12), opportunities for further study are available in TAFE institutions, higher education institutions and other post-school institutions. The latter include non-government teachers colleges and a few single purpose institutions such as the Australian Film, Television and Radio School, the Australian Maritime College and the National Institute of Dramatic Art.

Students' eligibility for entry to higher education institutions is assessed during, or at the end of, the final two years of secondary schooling. Five States and the Northern Territory use different combinations of school assessment and public examinations. In Queensland and the Australian Capital Territory eligibility to enter higher education is determined from moderated and standardised school assessments. Several education systems are currently reviewing their senior secondary school assessment procedures.

Number of schools, students and teaching staff

Of the 10,007 schools operating in Australia in 1990, 7,490 (74.8%) were government schools operated by the State Directors-General of Education (or equivalent) and 2,517 (25.2%) were non-government schools.

In July 1990 the number of full-time students attending primary and secondary schools totalled 3,041,657, comprising 2,193,347 (72.1%) in government schools and 848,310 (27.9%) in non-government schools.

The number of full-time students attending government schools in 1990 decreased marginally (1,008) from the 2,194,355 attending in 1989. The number of full-time students attending non-government schools increased by 1.3 per cent (11,278) from the 837,032 attending in 1989.

SCHOOLS, STUDENTS AND TEACHING STAFF BY CATEGORY OF SCHOOL (AND NON-GOVERNMENT AFFILIATION), JULY 1990

		Non-government schools				
	Government schools	*Anglican*	*Catholic*	*Other*	*Total(a)*	*All schools*
Number of schools	7,490	117	1,714	686	2,517	10,007
Number of students						
Males	1,123,008	44,297	298,412	82,795	425,504	1,548,512
Females	1,070,339	37,821	297,287	87,698	422,806	1,493,145
Persons	**2,193,347**	**82,118**	**595,699**	**170,493**	**848,310**	**3,041,657**
FTE of teaching staff(b)						
Males	57,740	2,796	11,513	4,926	19,234	76,974
Females	88,737	3,352	22,812	7,339	33,503	122,240
Persons	**146,477**	**6,148**	**34,324**	**12,265**	**52,737**	**199,214**

(a) Includes special schools administered by government authorities other than the State Departments of Education in Victoria and Western Australia. (b) Full-time teaching staff plus full-time equivalent of part-time teaching staff.

Source: Schools, Australia (4221.0).

STUDENTS BY CATEGORY OF SCHOOL AND SEX, JULY

	1985	*1986*	*1987*	*1988*	*1989*	*1990*
GOVERNMENT SCHOOLS						
Males	1,147,561	1,134,704	1,128,722	1,128,011	1,123,993	1,123,008
Females	1,083,272	1,073,097	1,068,020	1,069,692	1,070,362	1,070,339
Persons	*2,230,833*	*2,207,801*	*2,196,742*	*2,197,703*	2,194,355	2,193,347
NON-GOVERNMENT SCHOOLS						
Males	389,385	397,705	404,723	413,253	420,188	425,504
Females	385,951	395,883	403,418	411,373	416,844	422,806
Persons	*775,336*	*793,588*	*808,141*	*824,626*	837,032	848,310
ALL SCHOOLS						
Males	1,536,946	1,532,409	1,533,445	1,541,264	1,544,181	1,548,512
Females	1,469,223	1,468,980	1,471,438	1,481,065	1,487,206	1,493,145
Persons	**3,006,169**	**3,001,389**	**3,004,883**	**3,022,329**	**3,031,387**	**3,041,657**

Source: Schools, Australia (4221.0).

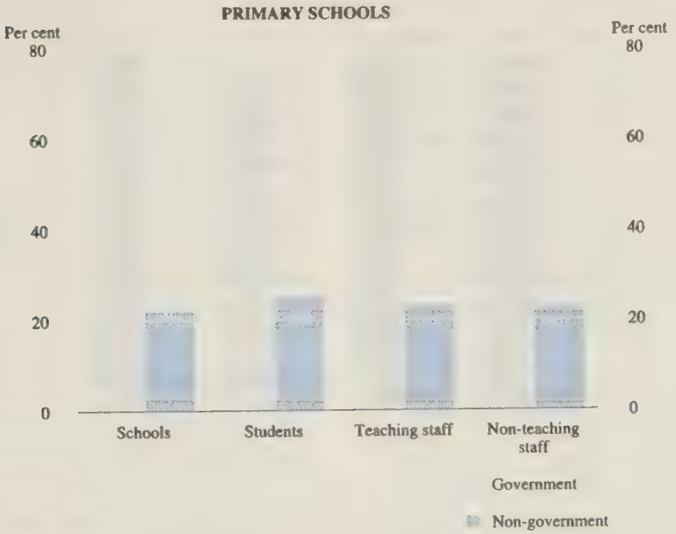
NUMBER OF FULL-TIME STUDENTS(a) BY CATEGORY OF SCHOOL (AND NON-GOVERNMENT AFFILIATION), SEX AND LEVEL/YEAR OF EDUCATION JULY 1990

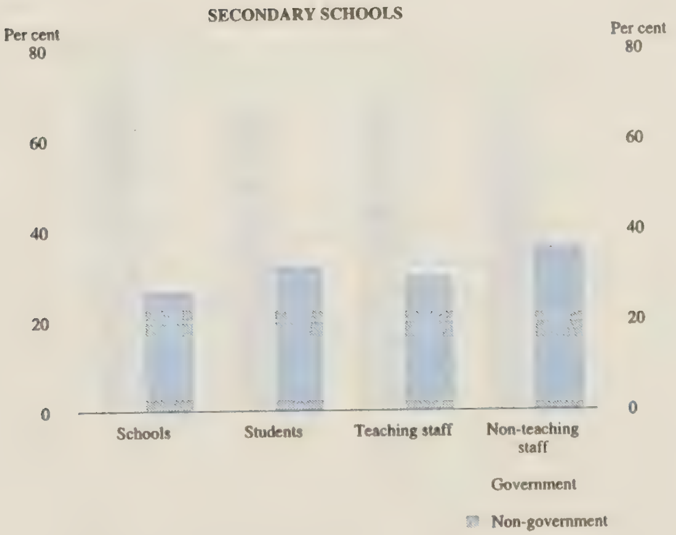
Level /Year of education	*Government schools*	*Non-government schools(a)*				*All schools*		
		Anglican	*Catholic*	*Other*	*Total*	*Males*	*Females*	*Persons*
Primary								
Pre-Year 1(b)	133,272	2,030	37,411	7,757	47,198	92,353	88,117	180,470
Year 1	195,290	2,564	49,014	10,209	61,787	132,262	124,815	257,077
Year 2	192,803	2,724	49,379	10,079	62,182	130,899	124,086	254,985
Year 3	187,563	3,198	48,542	9,909	61,649	127,373	121,839	249,212
Year 4	182,000	3,576	47,937	9,967	61,480	124,830	118,650	243,480
Year 5	174,716	4,374	47,575	10,223	62,172	121,577	115,311	236,888
Year 6	174,568	4,794	46,973	10,515	62,282	121,163	115,687	236,850
Year 7 *(Qld,SA,WA,NT)*	66,179	1,924	13,761	3,972	19,657	44,090	41,746	85,836
Ungraded	18,159	22	460	2,062	2,544	12,679	8,024	20,703
Total primary	*1,324,550*	*25,206*	*341,052*	*74,693*	*440,951*	*907,226*	*858,275*	*1,765,501*
Secondary								
Year 7 *(NSW,Vic.,Tas.,ACT)*	101,344	6,400	33,413	10,383	50,196	77,761	73,779	151,540
Year 8	165,180	10,174	48,490	17,435	76,099	123,658	117,621	241,279
Year 9	168,830	10,272	48,276	17,231	75,779	124,989	119,620	244,609
Year 10	169,026	10,315	48,395	17,327	76,037	124,476	120,587	245,063
Year 11	138,742	10,498	40,895	16,891	68,284	101,089	105,937	207,026
Year 12	110,479	9,212	34,594	15,133	58,939	79,097	90,321	169,418
Ungraded	15,196	41	584	1,400	2,025	10,216	7,005	17,221
Total secondary	*868,797*	*56,912*	*254,647*	*95,800*	*407,359*	*641,286*	*634,870*	*1,276,156*
Total	**2,193,347**	**82,118**	**595,699**	**170,493**	**848,310**	**1,548,512**	**1,493,145**	**3,041,657**

(a) Includes full time students attending special schools administered by government authorities other than the State Departments of Education. As from 1990 students attending special schools have not been identified separately and have been allocated to either primary or secondary level of education. (b) Pre-year 1 comprises kindergarten in New South Wales and Australian Capital Territory; preparatory in Victoria and Tasmania; reception in South Australia; and transition in the Northern Territory.

Source: Schools, Australia (4221.0).

PERCENTAGE OF FULL-TIME STUDENTS AND FTE(a) OF SCHOOL STAFF BY CATEGORY OF SCHOOL, JULY 1990





(a) Full-time teaching staff plus full-time equivalent of part-time teaching staff.

NOTE: Combined Primary/Secondary and Special schools are not included in the above graphs; however, the associated students and staff are included.

Source: Schools, Australia (4221.0).

Other schooling arrangements

Children may be exempted from the requirement of compulsory attendance if they live too far from a school or suffer a physical disability. These children usually receive correspondence tuition. Special schools are available in larger centres for socially, physically and mentally handicapped children in cases where they are not catered for in special or regular classes in ordinary schools.

In addition to correspondence tuition there are provisions for children in isolated areas. Schools of the Air operate in New South Wales, South Australia, Queensland, Western Australia and the Northern Territory.

Children of some Aboriginal groups in remote areas of the Northern Territory who have moved away from larger centres onto small decentralised communities called outstations or homeland centres, receive schooling from Aboriginal teaching assistants supported by visiting teachers from established schools.

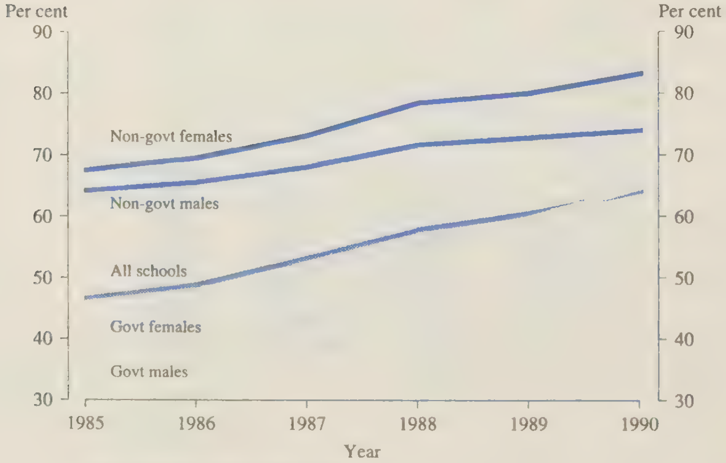
Special education is provided by State Governments and non-government authorities in specialist schools, in special classes or units in regular schools or by withdrawal from regular classes for periods of intensive assistance by special staff. In all States and particularly in New South Wales, Queensland and Victoria, parents have formed voluntary organisations to establish additional schools catering for their children's special needs. The Commonwealth Government provides funds to State and non-government authorities and community groups to assist in the provision of services and upgrading of special education facilities.

Boarding facilities are available at some non-government schools mainly in the larger towns and cities. A small number of government schools, in particular those catering for groups such as Aborigines, have residential hostels close by.

Apparent retention rates

Apparent retention rates are an important measure of performance of education systems and related government policies. The Commonwealth Department of Employment, Education and Training has set a national apparent retention rate target of 65 per cent to Year 12 by 1992.

APPARENT RETENTION RATES OF SCHOOL STUDENTS TO YEAR 12
BY CATEGORY OF SCHOOL AND SEX, JULY 1985-1990



Source: Schools, Australia, 1990 (4221.0).

The apparent retention rate is the percentage of students of a given cohort group who continued to a particular level/year of education. In the above diagram, apparent retention rates have been calculated for students who continued to Year 12 from their respective cohort group at the commencement of their secondary schooling.

Care should be exercised in the interpretation of apparent retention rates since a range of factors affecting their calculation have not been taken into account. At the Australia level these include students repeating a year of education, migration and other changes to the school population.

Comparisons between government and non-government schools must be made with caution because of the net transfer of students from government to non-government schools which tends to inflate the non-government school retention rates and reduce the government school rates. International comparisons are another area where structural differences must be taken into account.

The apparent retention rate of secondary school students to Year 12 rose from 60.3 per cent in 1989 to 64.0 per cent in 1990. As in previous years, the retention rate for female students (69.9%) was higher than the corresponding rate for males (58.3%). The rate varied between States and Territories, ranging from 44.7 per cent in Tasmania to 86.9 per cent in the Australian Capital Territory. The apparent retention rate increased between 1989 and 1990 in all States and Territories.

Funding of schools

Major responsibility for funding government schools lies with State Governments which provide about 90 per cent of schools' running costs. The Commonwealth contribution represents about 10 per cent. The Commonwealth is the major source of public funding for non-government schools, providing about 65 per cent, while the States provide about 35 per cent.

Non-government schools operate under conditions determined by government authorities, usually registration boards, in each State and Territory. These conditions require that minimum education standards are met and that the schools have satisfactory premises.

The majority of non-government schools are Catholic and there is a Catholic Education Commission in each State and at the national level. Most other non-government schools are under the auspices of, or run by, other religious denominations.

In 1985 the Commonwealth introduced a funding plan which provides stability and long-term security, by means of significant increases to both sectors, over an eight year period to 1992.

The Commonwealth Government has announced arrangements to apply for recurrent funding for non-government schools beyond 1992. These arrangements build on the features of the present successful scheme and will provide real increases for the neediest schools and maintain funding for schools in other categories.

Progress has been made towards increased public accountability for schools. Ministers have agreed to the production of a national report on schooling to inform the Commonwealth Parliament and the community about the achievements of Australian schools. The report, the first of which covers the 1989 school year, includes information on school curriculum, participation and retention rates, student achievements, the use of financial resources in schools, and other topics of national interest.

Primary and secondary education is free in government schools in all States and Territories. Fees for the hire of text books and other school equipment, however, may be charged, particularly in secondary schools. Most State Governments provide financial assistance to parents under specified conditions for educational expenses. Assistance includes various types of scholarships, bursaries, transport and boarding allowances, many of which are intended to assist low-income families. The Commonwealth Government also provides a number of schemes of assistance to facilitate access to education. An estimated 207,000 secondary students aged 16 and over from low income families received assistance in 1990 under AUSTUDY. During 1990 over 13,000 children were given assistance under the Assistance for Isolated Children (AIC) Scheme, and to 34,000 Aboriginal children under ABSTUDY (Schooling).

A summary of student assistance schemes and their expenditure is contained in the Government Assistance to Students section of this chapter.

TERTIARY EDUCATION

Tertiary education is provided in higher education institutions and in Technical and Further Education (TAFE) institutions. Higher education institutions include universities, Colleges of Advanced Education, Institutes of Technology, Institutes of Advanced Education, Institutes of Higher Education, Institutes of Tertiary Education, and Agricultural Colleges. Higher education institutions are self-governing and are established under State legislation. TAFE institutions operate as part of State-wide TAFE systems.

Technical and further education (TAFE)

Most TAFE education in Australia is provided in government administered colleges, or centres of technical and further education. There is also some TAFE provision in some higher education institutions, agricultural colleges and adult education authorities.

Each of the States provides the bulk of the finance for its own institutions. The Commonwealth Government provides supplementary funds to the States.

Government TAFE institutions offer an extremely wide range of vocational and non-vocational courses. Courses are available at pre-vocational, traineeship, trade technician and para-professional levels. Programs provide entry-level training, specialised instruction in particular aspects of job skills, pre-vocational training prior to employment, preparatory or bridging instruction to permit entry to a chosen vocational course, or supplement previous training (classified as streams 2100-4500). In addition, adult education courses are available for personal interest, leisure or general enrichment purposes (classified as stream 1000).

There are additionally some non-government bodies which offer technical and further education of a non-apprenticeship nature. Business colleges offer courses in secretarial studies, while agencies such as the Workers Educational Association and a range of voluntary groups help meet adult education needs in the community.

TECHNICAL AND FURTHER EDUCATION: STUDENTS (STREAMS 2100–4500) BY AGE GROUP, SEX AND TYPE OF ATTENDANCE, 1989

	Males			*Females*			*Persons*		
Age group (years)	*Full-time*	*Part-time*	*Total*	*Full-time*	*Part-time*	*Total*	*Full-time*	*Part-time*	*Total*
16 and under	5,882	27,824	33,706	4,410	21,124	25,534	10,292	48,948	59,240
17	6,586	31,774	38,360	5,162	17,326	22,488	11,748	49,100	60,848
18	8,013	39,038	47,051	7,638	19,607	27,245	15,651	58,645	74,296
19	5,405	32,720	38,125	4,774	16,765	21,539	10,179	49,485	59,664
19 and under	*25,886*	*131,356*	*157,242*	*21,984*	*74,822*	*96,806*	*47,870*	*206,178*	*254,048*
20–24	9,132	80,875	90,007	7,975	58,040	66,015	17,107	138,915	156,022
25–29	3,297	55,492	58,789	3,336	47,742	51,078	6,633	103,234	109,867
30–39	3,244	79,426	82,670	5,016	83,012	88,028	8,260	162,438	170,698
40–49	1,138	39,031	40,169	2,492	50,924	53,416	3,630	89,955	93,585
50–59	350	13,256	13,606	582	18,945	19,527	932	32,201	33,133
60–64	49	2,889	2,938	108	5,086	5,194	157	7,975	8,132
65 and over	112	4,512	4,624	153	7,410	7,563	265	11,922	12,187
Not stated	1,082	41,616	42,698	943	51,018	51,961	2,025	92,634	94,659
Total	**44,290**	**448,453**	**492,743**	**42,589**	**396,999**	**439,588**	**86,879**	**845,452**	**932,331**

Source: Department of Employment, Education and Training 'Selected TAFE Statistics, 1989'.

TECHNICAL AND FURTHER EDUCATION: DUTY HOURS(a) OF TEACHING STAFF ('000) AND FULL-TIME TEACHING STAFF NUMBERS BY TYPE OF APPOINTMENT, 1989

Type of appointment	*NSW*	*Vic.*	*Qld*	*WA*	*SA*	*Tas.*	*NT*	*ACT*	*Aust.*
Full-time									
Teaching hours	2,793.8	2,632.6	1,353.2	961.6	775.0	299.0	166.8	211.1	9,193.1
Non-teaching hours	4,325.0	3,483.4	1,835.4	647.9	1,558.8	386.7	236.0	346.9	12,820.1
Total duty hours	*7,118.8*	*6,116.0*	*3,188.6*	*1,609.5*	*2,333.8*	*685.7*	*402.8*	*558.0*	*22,013.2*
Number of Staff	6,153	4,440	2,681	1,712	1,816	568	321	442	18,133
Part-time									
Teaching hours	2,694.1	908.8	475.5	345.8	314.2	138.2	52.4	127.1	5,056.2
Non-teaching hours	167.8	363.3	48.2	7.6	3.2	12.7	14.5	3.0	620.3
Total duty hours	*2,861.9*	*1,272.1*	*523.7*	*353.4*	*317.4*	*151.0*	*66.9*	*130.1*	*5,676.5*
All teaching staff									
Teaching hours	5,487.9	3,541.4	1,828.7	1,307.4	1,089.2	437.3	219.2	338.2	14,249.3
Non-teaching hours	4,492.8	3,846.7	1,883.6	655.5	1,562.0	399.4	250.5	349.9	13,440.4
Total duty hours	**9,980.7**	**7,388.1**	**3,712.3**	**1,962.9**	**2,651.2**	**836.7**	**469.7**	**688.1**	**27,689.7**

(a) Actual teaching hours performed as part of the normal duties of full-time teachers over the teaching year.

Source: Department of Employment, Education and Training 'Selected TAFE Statistics, 1989'.

TECHNICAL AND FURTHER EDUCATION: ALL STUDENTS BY STREAM AND FIELD OF STUDY, 1989

Stream	Applied science	Art & design	Building	Business studies	Engineering	Rural & horticultural	Music	Paramedical	Industrial services	Personal services	General studies	Net
1000 Recreation, leisure	34,177	169,360	8,592	16,129	25,477	4,988	4,605	3,159	14,449	41,782	263,289	583,668
2100 Basic employment skills	886	5,231	1,432	6,792	5,490	910	19	333	2,322	83,677	61,292	165,070
2200 Educational preparation	2,536	3,176	222	2,321	3,363	415	229	414	24,203	12,180	44,663	92,927
3100 Operatives: initial	7,093	9,200	12,643	72,236	23,421	8,969	203	2,316	11,081	19,456	17,508	180,259
3211 Recognised trades: part exempt	46	38	2,804	—	6,601	32	—	9	928	649	898	11,953
3212 Recognised trades: complete	475	470	32,114	42	61,900	6,083	—	420	12,494	10,836	552	125,088
3221 Other skills: part exempt	14,552	2,800	178	8,968	570	241	—	26	287	1,055	311	28,905
3222 Other skills: complete	3,741	7,509	2,834	44,148	10,894	8,021	192	447	7,067	6,203	7,265	96,937
3300 Trade technician/supervisory	4,175	3,613	4,970	43,586	13,420	4,660	220	627	23,547	3,676	2,281	104,092
3400 Para-professional technician	5,817	713	2,650	8,833	3,654	486	—	1,410	173	661	911	24,859
3500 Para-professional higher technician	4,041	3,556	3,258	40,934	15,637	2,481	132	1,347	1,103	3,822	2,134	78,176
3600 Professional	45	327	75	243	108	—	52	72	260	222	470	1,874
4100 Operatives: post initial	134	1,160	441	4,976	2,778	864	—	112	742	2,788	835	14,822
4200 Trades/other skills: post initial	313	2,828	3,745	23,412	22,136	8,209	34	169	4,989	5,211	4,152	74,850
4300 Trade technician/supervisory: post initial	589	212	236	2,524	1,728	598	—	165	535	381	103	7,058
4400 Para-professional technician: post initial	263	8	249	224	234	109	—	2	79	83	114	1,360
4500 Para-professional higher technician: post initial	389	179	74	745	653	76	62	239	1,035	318	206	3,970
Total net streams 2100–4500(a)	*42,495*	*40,291*	*65,739*	*246,688*	*161,768*	*40,851*	*1,093*	*8,046*	*88,617*	*146,831*	*140,896*	*932,331*
Total net all streams	**76,663**	**209,409**	**74,249**	**261,992**	**187,000**	**45,729**	**5,610**	**11,201**	**102,858**	**187,955**	**403,385**	**1,505,417**

(a) The sum of the stream of study components does not add to the total as students enrolled in two or more streams have only been counted once in the total.

Source: Department of Employment, Education and Training 'Selected TAFE Statistics, 1989'.

Higher education

Higher education institutions offer a great variety of courses embracing such areas as agriculture, architecture, arts, business, dentistry, economics, education, engineering, health, law, medicine, music, science and veterinary science. Fields of study with the largest numbers of total students in 1989 and 1990 were Arts (22.6%), Business and Administration (21.6%) and Education (15.4%). These fields also had the largest numbers of completing students. Students commencing courses will have completed a full secondary education, or will have demonstrated that they have a high probability of successfully completing a course. There is keen demand for places at most institutions.

Higher education institutions are funded by the Commonwealth under the *Higher Education Funding Act 1988*. In 1991 expenditure on higher education totalled approximately $3.7 billion. Students are required to contribute to the cost of their education through the Higher Education Contribution Scheme (HECS). Under the Scheme students can pay their contribution up-front or defer payment for collection through the taxation system. In 1992 the annual course contribution for a full-time student is $2,250.

The basic undergraduate course at most institutions is a bachelor degree course of three or four years duration. At some institutions, courses may also be offered at the diploma or associate diploma level. Most institutions also offer postgraduate level study. One to two years of full-time postgraduate study is required for a masters degree and three to five years for a doctoral degree. Postgraduate diplomas are offered in some disciplines. In 1990, over 70 per cent of higher education students were enrolled in Bachelor courses with a further 16 per cent enrolled in postgraduate courses.

All institutions provide full-time and part-time courses. In addition some institutions offer education courses which associate full-time study with periods of employment. Distance education courses are also offered through eight Distance Education Centres and a number of specialist providers which operate in conjunction with a Centre.

In 1990, 62 per cent of students were enrolled in full-time study, 27 per cent in part-time study and 11 per cent in external studies.

The system of tuition in higher education institutions is normally by means of lectures, tutorials, seminars and supervised practical work. Normally, assessment of a student's progress is made by examination and/or completion of prescribed coursework or of individual research.

Many institutions have halls of residence on the campus which accommodate some of the students currently enrolled, usually those from remote or country areas. Student organisations on campus provide a wide range of sporting and social facilities for students.

HIGHER EDUCATION: ALL STUDENTS BY LEVEL OF COURSE AND FIELD OF STUDY, 1990

Level of course	*Agri-culture, animal husbandry*	*Archi-tecture, building*	*Arts, humanities and social sciences*	*Business admin-istration, economics*	*Education*	*Engineering and surveying*	*Health*	*Law, legal studies*	*Science*	*Veterinary science*	*Non-award courses*	*Total*
Higher doctorate	16	—	4	1	—	3	155	15	10	1	—	205
Ph.D	363	91	2,228	394	654	1,062	1,242	69	3,057	138	—	9,298
Master's by Research	331	137	2,071	320	754	899	600	215	1,654	51	—	7,032
Master's by Coursework	98	559	3,433	6,430	4,423	1,203	1,480	962	1,154	40	—	19,782
Postgraduate Qualification/Preliminary	37	118	783	741	1,577	197	464	1	600	4	—	4,522
Graduate (Post) Diploma — new area	232	306	3,423	5,362	8,270	899	1,496	463	3,056	11	—	23,518
Graduate (Post) Diploma — extension area	70	465	901	1,193	4,380	506	1,093	660	1,042	3	—	10,313
Graduate Certificate	—	—	26	97	210	—	4	82	21	—	—	440
Bachelor's Postgraduate	—	231	662	5	2,248	11	18	394	83	—	—	3,652
Bachelor's Honours	23	32	3,077	395	163	431	107	191	1,807	11	—	6,237
Bachelor's Pass	4,354	8,522	86,839	84,441	32,270	28,415	26,469	10,581	51,195	1,275	—	334,361
Diploma	109	64	1,001	55	18,580	94	19,840	—	442	—	—	40,185
Associate Diploma	2,892	199	4,304	4,856	1,080	2,217	1,435	502	2,957	—	—	20,442
Other award courses	—	—	22	—	—	48	—	—	12	—	—	82
Enabling courses	34		777	535	163	34	95	—	240	—	195	2,073
Non-award courses	—	—	—	—	—	—	—	—	—	—	2,933	2,933
Total courses	**8,559**	**10,724**	**109,551**	**104,825**	**74,772**	**36,019**	**54,498**	**14,135**	**67,330**	**1,534**	**3,128**	**485,075**

Source: Department of Employment, Education and Training 'Selected Higher Education Statistics, 1990'.

HIGHER EDUCATION: COURSES COMPLETED BY ALL STUDENTS, LEVEL OF COURSE AND FIELD OF STUDY, 1989

Level of course	*Agriculture, animal husbandry*	*Architecture, and building*	*Arts, humanities social sciences*	*Business administration, economics*	*Education*	*Engineering and surveying*	*Health*	*Law, legal studies*	*Science*	*Veterinary sciences*	*Total*
Higher doctorate	1	—	2	—	—	2	36	—	5	4	50
Ph.D.	62	6	257	43	90	106	143	5	474	22	1,208
Masters by Research	68	14	222	51	96	115	57	13	200	15	851
Masters by Coursework	27	85	597	1,059	727	231	194	44	197	15	3,176
Postgraduate Qualification/ Preliminary	20	11	131	230	590	41	115	—	108	—	1,246
Graduate (Post) Diploma — new area	134	73	1,162	1,554	4,754	344	448	107	853	1	9,430
Graduate (Post) Diploma — extension area	11	62	313	149	1,726	113	256	126	238	—	2,994
Bachelor's Postgraduate	—	33	189	—	1,164	1	8	224	7	—	1,626
Bachelor's Honours	20	9	1,488	222	46	317	80	78	1,324	27	3,611
Bachelor's Pass	609	1,298	12,959	10,353	7,762	3,410	4,681	1,768	7,398	244	50,482
Diploma	4	4	317	6	6,493	13	3,800	—	95	—	10,732
Associate Diploma	571	60	1,236	746	157	444	350	81	699	—	4,344
Total persons	**1,527**	**1,655**	**18,873**	**14,419**	**23,665**	**5,137**	**10,168**	**3,112**	**11,598**	**328**	**90,482**

Source: Department of Employment, Education and Training 'Selected Higher Education Statistics, 1989'.

HIGHER EDUCATION: COMMENCING STUDENTS BY LEVEL OF COURSE AND FIELD OF STUDY, 1990

Level of course	*Agri-culture, animal husbandry*	*Archi-tecture, building*	*Arts, humanities and social sciences*	*Business admin-istration, economics*	*Education*	*Engin-eering and surveying*	*Health*	*Law, legal studies*	*Science*	*Veterinary science*	*Non-award courses*	*Total*
Higher doctorate	16	—	2	—	—	2	55	10	4	1	—	90
Ph.D	81	24	601	112	207	266	395	16	758	32	—	2,492
Master's by Research	135	66	832	150	289	371	239	93	665	19	—	2,859
Master's by Coursework	53	249	1,853	3,321	2,248	480	772	470	610	27	—	10,083
Postgraduate Qualification/Preliminary	17	70	482	332	997	91	269	1	420	2	—	2,681
Graduate (Post) Diploma — new area	149	147	2,218	3,230	5,684	486	943	291	1,743	10	—	14,901
Graduate (Post) Diploma — extension area	57	330	619	759	2,633	279	783	645	664	3	—	6,772
Graduate Certificate	—	—	26	94	197	—	4	62	21	—	—	404
Bachelor's Postgraduate	—	47	311	—	1,093	8	1	182	26	—	—	1,668
Bachelor's Honours	—	—	320	27	60	16	70	9	216	2	—	720
Bachelor's Pass	1,571	2,851	34,806	32,439	13,157	9,646	8,932	3,194	21,153	295		128,044
Diploma	40	33	378	19	7,346	34	8,394	—	221	—	—	16,465
Associate Diploma	1,589	74	2,035	2,235	646	862	704	193	1,484	—	—	9,822
Other award courses	—	—	20	—	—	28	—	—	10	—	—	58
Enabling courses	34	—	747	482	144	22	95	—	237	—	149	1,910
Non-award courses	—	—	—	—	—	—	—	—	—	—	2,471	2,471
Total courses	**3,742**	**3,891**	**45,250**	**43,200**	**34,701**	**12,591**	**21,656**	**5,166**	**28,232**	**391**	**2,620**	**201,440**

Source: Department of Employment, Education and Training 'Selected Higher Education Statistics, 1990'.

HIGHER EDUCATION: ALL STUDENTS(a) BY SEX AND LEVEL OF COURSE

	Higher doctorate	Ph.D	Masters research	Masters course-work	Post-graduate quali-fication	Post-graduate diploma	Post-graduate certi-ficate	Post-graduate bachelor	Bachelor honours	Bachelor pass	Total under-graduate bachelor	Diploma	Associate diploma	Other	Total
Males															
1985	156	5,409	3,683	8,572	865	16,173	48	916	2,180	128,731	130,911	9,797	13,673	3,851	194,054
1986	173	5,540	3,685	9,055	800	16,786	44	993	2,057	133,358	135,415	9,887	13,825	3,645	199,848
1987	176	5,618	3,990	8,224	909	15,671	39	894	2,263	134,624	136,887	8,945	12,420	2,611	196,384
1988	148	5,816	4,110	8,979	920	16,279	37	807	2,496	141,937	144,433	9,181	12,248	2,816	205,774
1989	119	5,485	3,861	9,564	2,053	14,111	267	1,226	2,676	150,450	153,126	8,341	11,199	1,933	211,285
1990	155	6,065	4,222	11,532	1,998	15,527	219	1,220	3,044	163,365	166,409	8,045	11,713	2,315	229,420
Females															
1985	24	2,216	2,064	4,484	658	14,571	18	1,436	1,879	109,565	111,444	25,780	9,219	4,048	175,962
1986	21	2,330	2,147	4,943	652	15,897	24	1,599	1,895	118,808	120,703	28,071	9,666	4,067	190,120
1987	24	2,493	2,266	5,177	684	15,981	26	1,541	2,493	124,797	127,290	29,606	9,231	3,031	197,350
1988	33	2,747	2,435	5,957	723	17,476	38	1,523	2,699	136,329	139,028	32,191	8,922	4,003	215,076
1989	38	2,783	2,465	6,417	2,596	16,061	231	2,718	2,760	149,820	152,580	33,057	8,954	1,891	229,791
1990	50	3,233	2,810	8,250	2,524	18,304	221	2,432	3,193	170,996	174,189	32,140	8,729	2,773	255,655
Persons															
1985	180	7,625	5,747	13,056	1,523	30,744	66	2,352	4,059	238,296	242,355	35,577	22,892	7,899	370,016
1986	194	7,870	5,832	13,998	1,452	32,683	68	2,592	3,952	252,166	256,118	37,958	23,491	7,712	389,968
1987	200	8,111	6,256	13,401	1,593	31,652	65	2,435	4,756	259,421	264,177	38,551	21,651	5,642	393,734
1988	181	8,563	6,545	14,936	1,643	33,755	75	2,330	5,195	278,266	283,461	41,372	21,170	6,819	420,850
1989	157	8,268	6,326	15,981	4,649	30,172	498	3,944	5,436	300,270	305,706	41,398	20,153	3,824	441,076
1990	205	9,298	7,032	19,782	4,522	33,831	440	3,652	6,237	334,361	340,598	40,185	20,442	5,088	485,075

(a) Includes State-funded basic nursing students who would previously have been trained in hospitals.

Source: Department of Employment, Education and Training 'Selected Higher Education Statistics, 1990'.

The proportion of higher education students who are female has risen from around 47 per cent in 1985 to over 52 per cent in 1990 as the following table shows. This table also illustrates that higher education students are predominantly in the younger age groups (62% are 24 years of age or under).

HIGHER EDUCATION: STUDENTS BY AGE GROUP AND SEX

	1985	*1986*	*1987*	*1988*	*1989*	*1990*
19 and under						
Males	49,617	52,165	56,099	61,068	66,531	71,254
Females	54,223	59,198	65,741	72,985	81,892	90,589
Persons	*103,840*	*111,363*	*121,840*	*134,053*	*148,423*	*161,843*
20–24						
Males	61,377	61,914	60,759	62,896	65,482	71,902
Females	47,956	51,123	52,558	56,899	61,182	69,273
Persons	*109,333*	*113,037*	*113,317*	*119,795*	*126,664*	*141,175*
25–29						
Males	30,669	30,869	29,251	29,327	28,630	30,153
Females	21,999	23,443	23,088	24,768	25,321	27,447
Persons	*52,668*	*54,312*	*52,339*	*54,095*	*53,951*	*57,600*
30 and over						
Males	51,970	54,464	50,022	52,333	50,642	56,111
Females	51,478	56,083	55,733	60,249	61,396	68,346
Persons	*103,448*	*110,547*	*105,755*	*112,582*	*112,038*	*124,457*
Age not stated						
Males	421	436	253	150	—	—
Females	306	273	230	175	—	—
Persons	*727*	*709*	*483*	*325*	—	—
Total						
Males	**194,054**	**199,848**	**196,384**	**205,774**	**211,285**	**229,420**
Females	**175,962**	**190,120**	**197,350**	**215,076**	**229,791**	**255,655**
Persons	**370,016**	**389,968**	**393,734**	**420,850**	**441,076**	**485,075**

Source: Department of Employment, Education and Training 'Selected Higher Education Statistics, 1990'.

HIGHER EDUCATION: ALL STUDENTS BY TYPE OF ENROLMENT AND SEX

Year	*1985*	*1986*	*1987*	*1988*	*1989*	*1990*
Internal						
Full-time						
Males	104,276	107,342	114,739	122,433	129,437	140,247
Females	100,063	107,903	119,415	130,980	142,664	159,264
Persons	*204,339*	*215,245*	*234,154*	*253,413*	*272,101*	*299,511*
Part-time						
Males	66,407	67,619	59,475	60,606	59,668	65,279
Females	53,674	57,585	54,374	58,647	60,898	67,573
Persons	*120,081*	*125,204*	*113,849*	*119,253*	*120,566*	*132,852*
External						
Males	23,371	24,887	22,170	22,735	22,180	23,894
Females	22,225	24,632	23,561	25,449	26,229	28,818
Persons	*45,596*	*49,519*	*45,731*	*48,184*	*48,409*	*52,712*
Total						
Males	**194,054**	**199,848**	**196,384**	**205,774**	**211,285**	**229,420**
Females	**175,962**	**190,120**	**197,350**	**215,076**	**229,791**	**255,655**
Persons	**370,016**	**389,968**	**393,734**	**420,850**	**441,076**	**485,075**

Source: Department of Employment, Education and Training 'Selected Higher Education Statistics, 1990'.

HIGHER EDUCATION: COURSE COMPLETIONS BY LEVEL OF COURSE AND SEX

	1984	*1985*	*1986*	*1987*	*1988*	*1989*
Higher degree						
Research						
Males	1,108	1,216	1,276	1,257	1,455	1,458
Females	374	424	516	476	634	651
Persons	*1,482*	*1,640*	*1,792*	*1,733*	*2,089*	*2,109*
Coursework						
Males	1,910	1,866	1,940	1,622	1,944	1,969
Females	770	821	968	900	1,042	1,207
Persons	*2,680*	*2,687*	*2,908*	*2,522*	*2,986*	*3,176*
Other						
Postgraduate degree						
Males	5,062	5,693	5,719	5,982	6,707	6,648
Females	5,693	6,149	6,637	7,135	8,980	9,380
Persons	*10,755*	*11,842*	*12,356*	*13,117*	*15,687*	*16,028*
Bachelor degree						
Males	22,782	23,113	24,347	24,372	24,895	25,554
Females	19,965	21,186	22,886	24,845	26,317	28,539
Persons	*42,747*	*44,299*	*47,233*	*49,217*	*51,212*	*54,093*
Other non-degree						
Males	4,482	4,620	4,879	4,300	4,705	4,711
Females	8,141	8,347	8,613	9,368	10,180	10,365
Persons	*12,623*	*12,967*	*13,492*	*13,668*	*14,885*	*15,076*
Total						
Males	**35,344**	**36,508**	**38,161**	**37,533**	**39,706**	**40,340**
Females	**34,943**	**36,927**	**39,620**	**42,724**	**47,153**	**50,142**
Persons	**70,287**	**73,435**	**77,781**	**80,257**	**86,859**	**90,482**

Source: Department of Employment, Education and Training 'Selected Higher Education Statistics, 1989'.

SOURCES OF STUDENT INCOME

The following table shows the principal source of finance of students.

AVERAGE WEEKLY TOTAL INCOME OF STUDENTS: SELECTED STUDENT CHARACTERISTICS BY PRINCIPAL SOURCE OF FINANCE, 1991

($)

	Principal source of finance			
Student characteristics	*Government and other benefits*	*Wages, salaries and investments*	*Family and other*	*All students*
Sex				
Male	99.70	217.00	41.20	120.20
Female	114.40	181.00	46.20	119.40
Age group				
15-16	60.00	55.90	11.40	32.90
17-18	70.90	128.50	26.50	74.60
19-20	98.50	208.90	99.30	153.50
21-24	143.70	230.50	108.70	168.20
25 +	176.90	340.80	109.90	245.00

For footnotes *see* end of table.

AVERAGE WEEKLY TOTAL INCOME OF STUDENTS: SELECTED STUDENT CHARACTERISTICS BY PRINCIPAL SOURCE OF FINANCE, 1991 — *continued*
($)

	Principal source of finance			
Student characteristics	*Government and other benefits*	*Wages, salaries and investments*	*Family and other*	*All students*
Living arrangements				
Living with parent(s) or guardian	80.00	148.80	23.30	83.40
Living with spouse and/or children	188.50	346.30	113.00	255.50
Living away from home	144.20	273.80	165.40	189.40
Student type				
Secondary	65.70	65.40	14.70	42.40
Tertiary				
Full time	98.40	110.80	35.30	77.50
Part time	157.30	340.10	157.30	261.10
Apprentice(a)	*147.70	287.00	*1.00	276.10
Total	*140.10*	*256.30*	*97.10*	*185.60*
Higher education				
Full time	136.20	164.60	90.90	132.60
Part time	*148.40	379.00	*258.30	304.00
Total	*137.80*	*228.50*	*108.10*	*164.90*
Technical and further education				
Full time	120.40	*153.20	*56.40	115.90
Part time	166.30	337.60	*116.30	259.60
Total	*139.90*	*293.20*	*64.50*	*199.40*
Other	172.90	189.60	29.10	136.30
All students	**107.10**	**198.00**	**43.50**	**119.80**

(a) Apprentices have been shown as a separate category and included in the Tertiary Total estimates, but excluded from all other student type estimates.

Source: Student Finances, Australia (6550.0).

ADULT EDUCATION

Adult education is the most decentralised of the education sectors. Many courses provide a valuable starting point for encouraging people to go on to award courses at formal educational institutions. Other courses fulfil the cultural, recreational and social needs of community members without leading to formal qualifications. The range of course providers is enormous: from commercial and private industry, church and cultural groups to professional and semi-professional bodies, from the YMCA and similar institutions, higher educational institutions (including tertiary bodies), Technical and Further Education Institutions, primary and secondary schools, workers educational associations, and State and Commonwealth departments to public libraries, museums and galleries.

Throughout the 1980s there was a significant growth in non-government community based adult education run on a voluntary or semi-voluntary basis. These courses originate from the requirements, demands and initiatives of local communities and are offered by learning centres, community care centres, community schools, education centres (particularly in country areas), voluntary teaching networks, literacy groups, women's education programs, teachers' centres, ethnic networks, discussion centres and a variety of neighbourhood centres. Courses range from general interest, recreational and leisure activities, personal development, social awareness and craft through to vocational, remedial and basic education. Community based adult education constitutes a new trend in education. It is open to all, and non-formal characteristics demonstrate the capacity of the community to develop alternatives to institutionalised education.

The higher education sector plays an integral part in adult education through programs of continuing education in professional development, preparatory skills, and general education. These courses are offered by institutions in response to industry and government initiatives and are at a level consistent with the general teaching of the institutions. The TAFE sector is the largest provider of adult recreational and leisure courses.

GOVERNMENT ASSISTANCE TO STUDENTS

The Commonwealth Government spent more than $1,100 million on student assistance in 1990–91.

STUDENT ASSISTANCE SCHEMES, 1990–91

Scheme	*Number of students*	*Assistance $'000*
AUSTUDY Tertiary	181,816	586,567
AUSTUDY Secondary	207,378	399,883
AUSTUDY Adult Secondary	11,628	36,791
ABSTUDY (Schooling)	34,071	37,551
ABSTUDY (Tertiary)	14,650	47,830
Assistance for Isolated Children	13,153	15,526
English as a Second Language Living Allowances	N/A	4,104

Source: Department of Employment, Education and Training.

AUSTUDY is the Commonwealth Government's means-tested and non-competitive scheme of financial assistance to secondary and tertiary students aged 16 years and above. Maximum allowance rates for students aged 16 to 20 are aligned with benefits for unemployed people of the same age, and all rates are indexed annually. AUSTUDY is a major element in the Commonwealth Government's drive to increase participation in full-time education at the upper secondary and tertiary levels.

The number of students assisted under AUSTUDY has increased substantially since the introduction of the scheme in 1987, from about 225,000 students in that first year it rose to around 400,000 in 1991.

AUSTUDY has special provisions for young people unable to live at home because of exceptional and intolerable circumstances. These provisions allow young people in such circumstances to be classified as independent, thus free from the application of the parental means test in assessing their eligibility for AUSTUDY.

ABSTUDY (Schooling) is part of the Commonwealth Government's program to encourage and assist Aborigines and Torres Strait Islanders to take full advantage of the educational opportunities available to other Australians. It provides assistance to Aborigines and Torres Strait Islanders who are undertaking full-time secondary studies, or who are 14 years of age on 1 January of the year of study and go to primary school.

The Assistance to Isolated Children Scheme (AIC) is designed to assist the families of children who, because of geographic isolation or disability, must live away from home to attend school, study by correspondence, or live in a second home to go to school. In certain cases assistance may also be available for students from itinerant families.

Assistance for isolated children has been improved substantially, with rates of allowance and income test levels brought into line with AUSTUDY. The close integration of the two schemes includes the transfer to AUSTUDY of means-tested living away from home allowances for isolated secondary students aged 16 years and over.

The National Aboriginal and Torres Strait Islander Education Policy (AEP) was launched by the Minister for Employment, Education and Training in October 1989. The Policy is a joint commitment by the Commonwealth Government, and the State and Territory Governments in consultation with the Aboriginal community to achieve broad equity between Aboriginal people and other Australians in access, participation and outcomes at all stages of education.

The AEP is a concerted effort to address the educational needs of Aboriginal people, by cooperatively directing the strategies of the Commonwealth, the States and Territories, non-government education authorities and educational institutions at all levels to achieve:

- full involvement of Aboriginal people in educational decisions;
- equality of access to educational services;
- increased participation at all levels of education; and
- equitable and appropriate educational outcomes.

Through the AEP the Commonwealth has supplemented its recurrent and capital funding with a three year forward commitment in one consolidated program — the Aboriginal Education Strategic Initiatives Program. This has replaced all previous Commonwealth education funding programs except income support through ABSTUDY. ABSTUDY continues to provide education income support for secondary and tertiary students. ABSTUDY benefits are similar to those provided under AUSTUDY. The Aboriginal Tutorial Assistance Scheme (ATAS), provides assistance to all levels of Aboriginal students seeking help in their accredited coursework.

ADMINISTRATION OF EDUCATION AT THE NATIONAL LEVEL

The Commonwealth Department of Employment, Education and Training is responsible for education matters at the national level, to which a number of bodies contribute.

The National Board of Employment, Education and Training (NBEET) was established under the *Employment; Education and Training Act 1988*. Proclaimed on 1 July 1988, it is the mechanism for providing coordinated and independent advice to the Government on employment, education, training and research in the context of the Government's broad social, economic and resource policies.

The Board provides for input from providers of education and training, and from business, industry and union organisations, as well as interested bodies in the community. It is assisted by four Councils:

- The *Schools Council* advises on the Commonwealth's policies and programs relating to schools, including the general development of primary and secondary education.
- The *Higher Education Council* advises on the general development of higher education in Australia, priorities and arrangements for the funding of higher education institutions and overseas marketing of Australian higher education products.
- The *Employment and Skills Formation Council* advises on technical and further education, employment and skills formation policies, programs and services, and the promotion of effective training through business and industry.
- The *Australian Research Council* recommends to the Minister on the distribution of resources allocated to its research funding schemes, and provides advice to the Board on national research priorities and coordination of research policy.

In addition to the NBEET arrangements, the Commonwealth Government has also made new advisory arrangements in a number of specific areas including women, Aborigines, and in language policy and multicultural education:

- A *Women's Employment, Education and Training Advisory Group* has been formed to ensure appropriate consideration of issues relating to women's access and participation in employment, education and training, and to enhance links within the portfolio.
- The *National Aboriginal and Torres Strait Islander Education Policy* was launched in October 1989. Policy objectives are implemented through the Aboriginal Employment, Education and Training Committee which replaces the National Aboriginal Education Committee.
- The *Australian Advisory Council on Languages and Multicultural Education* has also been established to advise and assist the Government with policy and implementation matters and to provide a forum for discussion on needs and priorities.

A number of bodies at the national level have an important coordinating, planning or funding role:

- The *Vocational Education, Employment and Training Advisory Committee (VEETAC)*, composed of Commonwealth and State and Territory heads of department, two industry representatives and a representative of the National Training Board, was established in November 1990 to provide advice to Commonwealth and State Ministers in relevant areas. The Ministerial Council on Vocational Education, Employment and Training (MOVEET) provides a forum for meetings of Ministers in those areas.
- The *Australian Education Council, (AEC)*, membership is made up of State and Territory Ministers for Education, and usually meets at least annually as a consultative body to consider matters of mutual interest and generally to facilitate the exchange of information and the coordination of common programs.
- The *Conference of the Directors-General of Education* normally meets twice each year. Matters discussed and decisions reached at the

Conference have a direct influence in each State and Territory on such matters as pre-service and in-service education of teachers, school staffing, curricula, special education, building programs, administrative procedures and the extent of uniformity and diversity between education systems.

- The *Australian Council for Educational Research (ACER)* is an independent national research organisation. The Council is funded by annual grants from the Commonwealth Government, and each of the State and Territory Governments, as well as from its own activities. The Council is involved in its own and contract research in cooperation with education systems and plays a central role in the areas of educational measurement and evaluation as well as research into learning and teaching and in the social context of education. Authority for ACER's policy rests with its governing council.
- The *TAFE National Centre for Research and Development Ltd* was established in 1980 and is a company limited by guarantee. The main sources of funding are the Commonwealth Government (50%) and the States and Territories (on a per capita basis). Initially involved in curriculum development issues, the Centre's general research thrust is now aimed towards industries' requirements of TAFE, common skills across crafts, multi-skilling, skill formation and retraining. The National TAFE Clearing House within the Centre provides a service disseminating information on research and development activities within TAFE in Australia.
- The *Register of Australian Tertiary Education* (RATE) was set up in January 1990 by the Australian Education Council. RATE constitutes a single national register of authorities (including institutions) empowered by State/Territory or Commonwealth governments to accredit tertiary education award courses. It is in turn the responsibility of those authorities/institutions to accredit tertiary award courses.

There are also a number of non-government organisations which have coordinating roles in their specific segments of education and training at the national level. These include the National Catholic Education Commission, the National Council of Independent Schools Associations, the Australian Vice-Chancellors' Committee, the Australian Committee of Directors and Principals Ltd, the Australian Conference of Directors of TAFE and the Australian High School Principals' Association.

NEW DEVELOPMENTS IN EDUCATION

A national curriculum agency, Curriculum Corporation, a jointly owned company of the States and the Commonwealth, has been established to facilitate greater efficiency and effectiveness in curriculum development and dissemination through sharing of knowledge and scarce resources. Other areas where important work is being undertaken on a cooperative basis are improved school-TAFE links and developments of a common approach to assessment.

At its meeting in April 1991, the Australian Education Council (AEC) approved eight areas of learning upon which national collaborative curriculum activity will be based. These areas are:

- English;
- Mathematics;
- Science;
- Language Other Than English;
- Arts;
- Technology;
- Studies of society and environment; and
- Health (incorporating physical education and personal development).

A major part of the higher education reform package was the expansion of the system, with increased opportunities for participation, particularly by young people, and greatly increased resources. The 1990–91 budget provided for additional funds and continuing expansion through the 1991–93 triennium. In 1991 the Government provided funding for an additional 4,800 student intakes in higher education.

In 1991 the AEC released a major report, *Young People's Participation in Post-compulsory Education and Training*. The report is likely to have a significant impact on education and training during the next decade.

The National Project on the Quality of Teaching and Learning (NPQTL) has been established to provide research and developmental support for award restructuring in teaching and to foster cooperative development of national education strategies. The Governing Board of the NPQTL comprises representatives of government and non-government employing bodies, teacher unions, the Australian Council of Trade Unions and the Commonwealth.

EXPENDITURE ON EDUCATION

The aim of this section is to provide information on the extent and direction of both government and private expenditure on education in recent years. Estimates of government and private expenditure have been compiled in accordance with national accounting concepts. For explanation of these concepts, reference should be made to *Australian National Accounts: Concepts, Sources and Methods* (5216.0), *Classification Manual for Government Finance Statistics, Australia* (1217.0) and also to *Commonwealth Government Finance, Australia* (5502.0), and *Government Finance Statistics, Australia* (5512.0), from which figures included in this section have also been taken.

The emphasis given in this section to the outlays of the public sector reflects in part the relative importance of that sector in the provision of education services, but it is also a reflection of the lack of detailed information relating to educational activities in the private sector. Information is given, however, to show the order of magnitude of private sector spending, and also to show aggregate supply of education services and facilities.

Total expenditure on education

Total expenditure on education is comprised of the final expenditures of the public and private sectors.

The figure derived for total expenditure on education can be regarded as a measure of the aggregate supply of education services and facilities and can therefore be related to the supply of goods and services available from domestic production (i.e., gross domestic product). Final consumption expenditure and capital expenditure on education, by sector, can also be related to gross domestic product. These relationships are shown in the table on the following page. The estimates show a steady decline in both government and total outlays on education, as a proportion of gross domestic product, from 1983–84 to 1988–89. Over this period, the level of private final expenditure on education, as a proportion of gross domestic product, was relatively constant.

Public sector

The statistics presented here for the public sector relate to those outlays which have been identified as being primarily designed to serve the purposes of 'education', as broadly defined in the United Nations System of National Accounts. Included, therefore, are outlays on administration and regulation of school systems and institutions of higher learning and educational research; on provision, inspection and support of primary and secondary schools, colleges and universities, technical training institutions, schools for the handicapped, adult education facilities, preschool centres etc.; on scholarships etc.; and on subsidiary services such as transportation of school children and fare concessions. Expenditure on school medical and dental services and provision of free milk for school children are not included, as these are regarded as primarily serving the purpose of health.

Private sector

Final expenditure on education by the private sector consists of private final consumption expenditure on education services, and expenditure on new fixed assets — mainly by private non-profit organisations and financed in part by grants from public authorities for private capital purposes. Private final consumption expenditure on education services is an estimate of fees paid by persons to government schools (mainly technical and agricultural colleges), fees and gifts to universities and school fees (other than boarding fees) paid to non-government schools, business colleges, etc. Expenditure on such items as school books, uniforms, etc., and expenditure by parents' associations on school equipment is not included, being treated in the Australian National Accounts as private final consumption expenditure on other goods and services (such as clothing, books, household durables, etc.). Private expenditure on new fixed assets is estimated from statistics of the value of work done on new building and major additions to buildings of private educational institutions.

EXPENDITURE ON EDUCATION

Description	*1983–84*	*1984–85*	*1985–86*	*1986–87*	*1987–88*	*1988–89*
			— $ million —			
Government						
General government final consumption expenditure	8,174	8,798	9,605	10,299	10,848	11,636
Gross fixed capital expenditure	736	877	1,029	1,155	1,015	1,093
Increase in stocks	3	—	1	2	2	2
Final expenditure (1)	*8,913*	*9,675*	*10,636*	*11,455*	*11,865*	*12,731*
Personal benefit payments (2)	663	735	826	954	1,207	1,352
Grants and advances to non-profit institutions	1,135	1,253	1,412	1,519	1,612	2,001
Other (3)	18	27	28	4	–4	–13
Total government outlay on education	*10,728*	*11,689*	*12,901*	*13,931*	*14,680*	*16,071*
Private						
Private final consumption expenditure	1,663	1,879	2,103	2,326	2,597	2,696
Gross fixed capital expenditure	117	175	224	278	312	336
Final expenditure (4)	*1,780*	*2,054*	*2,327*	*2,604*	*2,909*	*3,032*
Total final expenditure on education (1) + (4)	10,693	11,729	12,963	14,059	14,774	15,763
Total outlay on education (1) + (2) + (3) + (4)	11,373	12,491	13,816	15,017	15,978	17,102
Gross domestic product(a)	194,617	216,059	240,091	264,627	299,429	339,834
			— per cent —			
Total government outlay as percentage of gross domestic product	5.5	5.4	5.4	5.3	4.9	4.7
Total outlay on education as percentage of gross domestic product	5.8	5.8	5.8	5.7	5.3	5.0
Total final expenditure on education as percentage of gross domestic product	5.5	5.4	5.4	5.3	4.9	4.6
of which						
General government final consumption expenditure	4.2	4.1	4.0	3.9	3.6	3.4
Private final consumption expenditure	0.9	0.9	0.9	0.9	0.9	0.8
Government gross fixed capital expenditure	0.4	0.4	0.4	0.4	0.3	0.3
Private gross fixed capital expenditure	0.1	0.1	0.1	0.1	0.1	0.1

(a) The figures for Gross Domestic Product are from *Australian National Accounts: National Income and Expenditure (5204.0).*

Source: Expenditure on Education, Australia (5510.0).

Commonwealth Government

Details of outlay on education by authorities of the Commonwealth Government are given in the following table.

COMMONWEALTH GOVERNMENT: OUTLAY ON EDUCATION BY GOVERNMENT PURPOSE CLASSIFICATION
($ million)

Government purpose classification(a)	*1983–84*	*1984–85*	*1985–86*	*1986–87*	*1987–88*	*1988–89*
Primary and secondary education	1,586	1,732	1,899	1,996	2,242	2,413
Tertiary education	2,501	2,772	2,992	3,212	3,508	3,518
University education	2,155	2,322	2,544	2,727	3,020	3,057
Technical and further education	322	419	410	437	429	370
Tertiary education n.e.c.	24	31	39	48	59	91
Preschool education and education not definable by level	99	105	94	85	89	91
Preschool education	38	38	22	6	6	6
Special education	—	—	—	—	—	1
Other education not definable by level	61	67	72	78	83	84
Transportation of students	5	5	5	6	7	6
Education n.e.c.	17	18	13	54	64	84
Total outlay on education	**4,207**	**4,632**	**5,004**	**5,353**	**5,909**	**6,112**
Total outlay on all purposes	60,542	67,602	74,910	80,175	83,404	87,659
Outlay on education as a percentage of total outlay	6.9	6.9	6.7	6.7	7.1	7.0

(a) For an explanation of the classification refer to the ABS publication *Classification Manual for Government Finance Statistics (1217.0).*
Source: Expenditure on Education, Australia (5510.0).

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Census of Non-government Schools
DEET Programs: Impact on TAFE
Department of Employment, Education and Training Annual Report
Education at a Glance
Education Participation Rates
Higher Education Funding for the 1991-93 Triennium
Higher Education Series
Retention and Participation in Australian Schools
Schooling in Australia: Statistical Profile
Selected Higher Education Statistics
Selected TAFE Statistics
TAFE 1990: Commonwealth Programs and Priorities

The annual reports of the respective State education departments also provide detailed statistical information.

FOR MORE INFORMATION

The ABS has a far wider range of information on Australia than that contained in the *Year Book*. Information is available in the form of regular publications, electronic data services, special tables and from investigations of published and unpublished data.

For further information contact ABS Information Services at one of the addresses listed on the page facing the Introduction to the *Year Book*.

Chapter Eleven

Law and Order

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THE LAW IN AUSTRALIA

Nature and composition

The laws of a country represent the common body of rules, whether proceeding from legislation, executive action, court judgements or custom, that a State or community recognises as binding on its citizens or members, and which are enforceable by judicial means. In Australia, the law consists basically of:

- Acts passed by the Commonwealth Parliament acting within the scope of its powers under the Australian Constitution, together with the regulations, rules and orders made under such Acts;
- Acts and Ordinances passed in respect of the Australian Capital Territory and the Northern Territory of Australia, together with the regulations, rules and orders made under such Acts and Ordinances;
- Acts passed by State Parliaments and the Legislative Assembly of the Northern Territory of Australia and the Australian Capital Territory, together with the regulations, rules and orders made under such Acts;
- so much of the common or statute law of England that still applies to Australia and remains unrevoked by Australian domestic legislation; and
- the common law, consisting of judicial decisions.

These various laws relate to a number of subject matters, including constitutional law, criminal law, civil law, family law and industrial law.

Commonwealth and State responsibilities

Under the Australian Constitution, the Commonwealth of Australia is empowered to make laws in relation to certain matters specified in the Constitution, e.g., in relation to trade and commerce, taxation, defence and external affairs. In relation to some of these matters, the powers of the Commonwealth are concurrent with those of the Australian States and Territories in that they may be exercised by either the Commonwealth, the States or the Territories. In relation to some other specified topics the Commonwealth's power is absolute, and, in all areas of federal jurisdiction, Commonwealth laws are binding on the Australian States and Territories.

The Australian States and Territories have independent legislative power in relation to all matters that are not otherwise specifically invested in the Commonwealth of Australia, and it is the statute law and the common law of the States and Territories that primarily govern the day-to-day lives of most Australians.

Administration

Administration of the law in Australia is undertaken by the responsible government concerned, principally through the Commonwealth, State and Territorial police forces, the National Crime Authority, and State and Territorial corrective or penal services. There is no independent federal corrective service, and the relevant State or Territorial agencies provide corrective services for federal offenders.

Law reform

Reform of the law is undertaken principally through the Commonwealth Parliament and State Parliaments, as well as Attorneys-General acting in some instances on recommendations made by State or Australian Law Reform Commissions, and by State Supreme Courts or Federal Courts.

Law Reform Commissions have been established as statutory authorities in all Australian States (except South Australia) to undertake review of State laws, and to report findings and recommendations for the reform of those laws to State Parliaments and Attorneys-General. (In South Australia, a Law Reform Committee was established by proclamation to perform similar functions in that State.) Additionally, in Victoria there is a Chief Justice's Law Reform Committee and a Victorian Legal and Constitutional Committee established under the *Parliamentary Committees (Joint Investigatory Committees) Act 1982*. These agencies have functions to recommend reform of the law. Acceptance of their recommendations depends upon governmental and parliamentary reaction to the proposals.

The Australian Law Reform Commission

The Australian Law Reform Commission commenced operations in 1975 under the *Law Reform Commission Act 1973*. The Commission was established to report on the review, simplification and modernisation of those laws concerning matters assigned by the Australian Constitution to the jurisdiction of the Commonwealth Parliament, and to consider proposals for the uniformity of laws of the Australian States and Territories. The Commission is required to make reports arising out of such review or consideration to the Commonwealth Attorney-General, and to make such recommendations as it thinks fit.

Since 30 June 1990, the Commission has completed reports on the following references:

- Criminal Admiralty Jurisdiction and Prize; and
- censorship procedure.

See earlier Year Books for previous reports.

FEDERAL COURTS

The judicial power of the Commonwealth of Australia is vested in the High Court of Australia, in the federal courts created by the Commonwealth Parliament and in the State courts invested by Parliament with federal jurisdiction. The nature and extent of the judicial power of the Commonwealth is prescribed by Chapter III of the Australian Constitution.

High Court of Australia

The Australian Constitution provides that the judicial power of the Commonwealth of Australia should be vested in a 'Federal Supreme Court, to be called the High Court of Australia'. The Constitution requires that there shall be a Chief Justice and not less than two other Justices of the High Court. Today there are six other Justices. Originally, Justices were appointed for life. However, following an amendment to the Constitution in 1977, Justices appointed after that date retire at seventy years of age.

The Australian Constitution vests two types of jurisdiction in the High Court: appellate, under section 73; and original, under sections 75 and 76.

Original jurisdiction is conferred by section 38 of the *Judiciary Act 1903* in respect of:

- matters arising directly under any treaty;
- suits between States, or between persons suing or being sued on behalf of different States, or between a State and a person suing or being sued on behalf of another State;
- suits by the Commonwealth of Australia, or any person suing on behalf of the Commonwealth, against a State, or any person suing or being sued on behalf of a State;
- suits by a State, or any person suing on behalf of a State, against the Commonwealth of Australia or any person being sued on behalf of the Commonwealth; and
- matters in which a writ of mandamus or prohibition is sought against an officer of the Commonwealth of Australia or of a federal court. (However, the High Court shares some of its jurisdiction under this section with the Federal Court of Australia.)

The High Court is empowered to remit to another court any matters under section 38 of the Judiciary Act. In addition, the High Court is the Commonwealth Court of Disputed Returns.

The appellate jurisdiction of the High Court of Australia derives from the Judiciary Act, together with the *Federal Court of Australia Act 1976* and the *Family Law Act 1975*, and permits the High Court to grant leave to appeal from decisions of:

- State Supreme Courts;
- State courts exercising federal jurisdiction;
- the Federal Court of Australia; and
- the Family Court of Australia.

In considering whether to grant an application for leave to appeal from a judgment, the High Court may have regard to any matters that it considers relevant, but it is required to have regard to whether the application before it:

- involves a question of law that is of public importance, or upon which there are differences of opinion within, or among, different courts; or
- should be considered by the High Court in the interests of the administration of justice.

The High Court is now the final court of appeal in Australia.

Federal Court of Australia

The Federal Court of Australia was created by the *Federal Court of Australia Act 1976.*

The Federal Court consists of an Industrial Division and a General Division. Matters arising under the *Industrial Relations Act 1988* are dealt with in the Industrial Division and all other matters are dealt with in the General Division. The Court sits as required in each Australian State, in the Australian Capital Territory and the Northern Territory.

The Federal Court has such original jurisdiction as is invested in it by laws made by the Commonwealth Parliament. Except in cases where a hearing had actually commenced before 1 February 1977, the jurisdiction formerly exercised by, respectively, the Federal Court of Bankruptcy and the Australian Industrial Court have been transferred to the Federal Court.

The Federal Court has been invested with original jurisdiction, concurrent with that of the High Court of Australia, in relation to matters in which a writ of mandamus or prohibition or an injunction is sought against an officer of the Commonwealth of Australia.

The Federal Court has appellate jurisdiction in relation to the decisions of single judges of the Court, decisions of the respective Supreme Courts of the Australian Territories (but not the Northern Territory), and certain decisions of State Supreme Courts when exercising federal jurisdiction (e.g., under the *Income Tax Assessment Act 1936* and the *Patents Act 1990*).

Family Law

The *Family Law Act 1975*, which commenced operation on 5 January 1976, introduced a new law dealing with the dissolution and nullity of marriage, custody and welfare of the children, maintenance and the settlement of property between the parties to a marriage in Australia. The Act also created the Family Court of Australia as a specialist court dealing only with matrimonial and associated proceedings.

The Act provides that there is only one ground for divorce — that of irretrievable breakdown of a marriage — which ground is established if the husband and wife have been separated and have lived apart from each other for 12 months and there is no reasonable likelihood of their reconciliation. Statistics on divorce are contained in the chapter, Demography.

The provisions of the Family Law Act dealing with the maintenance, custody and welfare of children of a marriage have, since 1 April 1988, applied to all children (including ex-nuptial children) in New South Wales, Victoria, Queensland, South Australia, Tasmania, the Australian Capital Territory, the Northern Territory, and Norfolk Island. In Western Australia, the Family Law Act does not apply to ex-nuptial children, who are subject to State laws.

Proceedings under the Family Law Act are dealt with by the Family Court of Australia and by certain other courts in the Australian States and Territories. Except in certain areas of Western Australia, Magistrates Courts and Courts of Petty Sessions have jurisdiction in all proceedings under the Act except for:

- proceedings for dissolution or nullity of marriage. (The courts in which an undefended application for dissolution may be instituted or heard have been limited by regulation.); and
- defended proceedings for custody or concerning property worth more than $1,000, unless the parties agree to the matter being heard by a Magistrates Court or Court of Petty Sessions.

A State Family Court has been established in Western Australia to deal with family law matters in that State. That Court applies the provisions of the Family Law Act in dealing with matters related to dissolution and nullity of marriages, the custody and welfare of children of marriages, and maintenance and property settlements.

In relation to the guardianship and custody of children, the Family Law Act provides that both parents are guardians, and have, subject to a court order to the contrary, the joint custody of their children under 18 years of age. However, a parent or another interested person can apply to the Court for sole custody of a child at any time.

Since 1 June 1988, the Child Support Agency, an office established within the Australian Taxation Office, collects periodic child maintenance and some spousal maintenance for a wide range of persons, including pension recipients, sole parents who have separated since that date, or who have never cohabited with the parent of a child born since that date. The Child Support Agency uses maintenance collection and enforcement methods similar to those used for the collection and enforcement of income tax.

Since 1 October 1989 the *Child Support (Assessment) Act 1989* has provided a formula for the administrative assessment of maintenance by the Registrar of Child Support. The purpose of an administrative assessment is the determination of maintenance. The scheme aims to ensure that parents share the cost of child support according to their capacity to pay and to provide for adequate support of their children. The Act applies only to children born after 1 October 1989, or those whose parents separate after that date. The new legislation does not, however, prevent parents from reaching their own child maintenance agreements, or from seeking a judicial review of an administrative assessment.

The court has power to settle disputes about the parties' family assets, including the power to order a transfer of legal interests in matrimonial property. When dealing with these disputes, the court considers the interest each party has in the property, the financial and non-financial contributions made by each party during the marriage, and the matters the Court is required to consider in dealing with maintenance applications.

The Family Law Act also established two statutory bodies that assist and advise the Commonwealth Attorney-General on family law matters. They are the Family Law Council, an advisory body that is based in Canberra, and the Australian Institute of Family Studies, a research body that is based in Melbourne.

Family Court of Australia

The Judges of the Family Court of Australia are chosen because of their suitability to deal with matters of family law by reason of their training, experience and personality. Staff who are attached to the Court include trained counsellors and legally qualified Registrars and Deputy Registrars.

Proceedings under the Family Law Act in the Family Court are heard in open court, although persons may be excluded from the Court by court order. Some proceedings may be heard in chambers. No publicity that identifies the person or persons involved in any proceedings under the Act is permitted unless otherwise directed by the Court. The publication of law court lists and law reports, or other publications of a technical character directed to the legal or medical professions, is, however, exempted from this prohibition.

STATE AND TERRITORY COURTS

Australian State and Territory courts have original jurisdiction in all matters brought under State or Territory statute laws, and in matters arising under federal laws, where such matters have not been specifically reserved to courts of federal jurisdiction. Most criminal matters, whether arising under Commonwealth, State or Territory law, are dealt with by State or Territory courts.

Each State and Territory court system is organised and operates independently. However, within each system, which comprises both courts and general jurisdiction and certain specialist courts and tribunals, the courts are organised hierarchically according to the nature of the several matters with which they may deal.

Appeals

The various State County and District Courts and State and Territory Supreme Courts have jurisdiction to hear appeals against the decisions of lower courts and some specialist tribunals in their respective jurisdictions. The procedures concerning the right of appeal are laid down by statute in each State and Territory and appeals may be lodged against matters such as the correctness of the verdict or the severity of the sentence imposed.

Special courts and tribunals

Each Australian State and Territory administers particular areas of the law through specialist courts or tribunals, such as Small Claims Courts and Licensing Courts. These courts or tribunals deal primarily with civil matters or matters of an administrative nature.

Courts of Marine Inquiry

Matters that come within the jurisdiction of Courts of Marine Inquiry are contained in the Commonwealth *Navigation Act 1912*. The principal areas of these Courts' jurisdiction are to make inquiries into casualties, including missing ships and events entailing loss of life on or from ships. Courts of Marine Inquiry are convened by the request of the Minister for Transport and Communications.

ADMINISTRATIVE REVIEW ACTIVITIES

Administrative Appeals Tribunal

The Administrative Appeals Tribunal was established by the *Administrative Appeals Tribunal Act 1975*. Its President is a judge of the Federal Court of Australia. The Tribunal is an independent body whose function is to review the decisions made by Commonwealth Ministers of State, Commonwealth authorities and officials under certain laws of the Commonwealth of Australia. The Tribunal is able to substitute its own decision in those areas in which it has jurisdiction, which covers decisions made under more than 200 Commonwealth enactments, including decisions under the *Social Security Act 1947*, the *Migration Act 1958*, the *Customs Act 1901*, the *Export Market Development Act 1974*, the *Freedom of Information Act 1982*, the *Repatriation Act 1920*, the *Veterans' Entitlements Act 1986* and the *Civil Aviation Act 1988*.

The Administrative Review Council was also established by the *Administrative Appeals Tribunal Act 1975*. The principal functions of the Administrative Review Council are to make recommendations to the Commonwealth Attorney-General on rights of review of administrative decisions and on the procedures of administrative tribunals.

Administrative Decisions (Judicial Review) Act 1977

The *Administrative Decisions (Judicial Review) Act 1977* provides for judicial review by the Federal Court of Australia of administrative action taken under Commonwealth legislation. Where an order of review is sought by an aggrieved person, the Court is empowered to review the lawfulness of a decision, the conduct leading up to the making of a decision, or circumstances where there has been failure to make a decision. The grounds on which review may be sought and the powers of the Court are set out in the Act. In many cases, a person who is entitled to seek judicial review in respect of an administrative decision may seek a statement of reasons for the decision from the decision maker.

Commonwealth Ombudsman

The Office of the Commonwealth Ombudsman was established by the *Ombudsman Act 1976* to investigate complaints about the administrative actions of Commonwealth Government departments and prescribed authorities.

The Ombudsman has special powers to investigate complaints against the Australian Federal Police and actions of agencies relating to freedom of information, and to inspect record-keeping procedures for telephone interceptions under the *Complaints (Australian Federal Police) Act 1981*, the *Freedom of Information Act 1982*, and the *Telecommunications Act (Interception) Act 1979* respectively.

The Ombudsman was designated the Defence Force Ombudsman in 1983 by amendment to the Ombudsman Act, with power to investigate matters relating to service in the Australian Defence Force by serving and former members.

The Commonwealth Ombudsman has extensive powers to require the production of documents and information. On completion of an investigation, consideration is given to whether the action in question was illegal, unjust, oppressive, improperly discriminatory, or wrong. The Ombudsman can also assess and report on the reasonableness of any law, rule or policy under which the action was taken.

If necessary, the Commonwealth Ombudsman can recommend to the agency concerned that it take appropriate remedial action. If the agency fails to comply with such a recommendation, the Ombudsman can report successively to the Prime Minister and to the Commonwealth Parliament.

The Ombudsman is also the Ombudsman for the Australian Capital Territory, a separate position created by the *A.C.T. Ombudsman Act 1989.*

COMMONWEALTH OMBUDSMAN COMPLAINTS RECEIVED, 1990–91

Type of complaint	*Number*
Commonwealth Ombudsman (includes Freedom of Information)	
Written complaints	3,134
Per 100,000 of population	18.7
Oral complaints	9,086
Per 100,000 of population	53.6
Defence Force Ombudsman	
Written	298
Oral	663
Australian Federal Police	
Written	524
Oral	151

Source: Commonwealth Ombudsman.

COMMONWEALTH AND DEFENCE FORCE OMBUDSMAN JURISDICTIONS COMPLAINTS FINALISED, 1990–91

Method of finalisation	*Number*
Written complaints	
Outside Ombudsman's jurisdiction	554
Discretion exercised	702
Withdrawn or lapsed	188
Substantially in favour of complainant	718
Partly in favour of complainant	444
In favour of agency	920
Total	*3,526*
Oral complaints	
Discretion exercised	3,266
Written complaint advised	1,775
Substantially in favour of complainant	1,600
Partly in favour of complainant	1,411
In favour of agency	1,697
Total	*9,749*
Total finalised	**13,275**

Source: Commonwealth Ombudsman.

The Human Rights and Equal Opportunity Commission

The Human Rights and Equal Opportunity Commission was established by the Australian Government on 10 December 1986 and replaced the Human Rights Commission that had existed for the previous five years. The Commission's functions include the promotion of understanding, acceptance and public discussion of human rights in Australia, including those set out in the following United Nations instruments:

- the Convention Concerning Discrimination in Respect of Employment and Occupation;
- the International Covenant on Civil and Political Rights;
- the Declaration on the Rights of the Child;
- the Declaration of the Rights of Mentally Retarded Persons;
- the Declaration on the Rights of Disabled Persons;
- the International Convention on the Elimination of All Forms of Racial Discrimination; and
- the Convention on the Elimination of All Forms of Discrimination Against Women.

The major functions of the Commission include: the examination of proposed Commonwealth legislation to ascertain whether any provisions are inconsistent with, or contrary to, human rights; inquiry into practices that may be inconsistent with, or contrary to, human rights, and the settlement of matters arising therefrom by inquiry and conciliation or report to the Commonwealth Attorney-General, as appropriate; undertaking research and educational programs relating to human rights; and the examination of international instruments to ascertain whether changes need to be made in domestic laws to comply with international agreements to which Australia is a party.

On 1 January 1990 regulations came into effect which enable the Commission to investigate and conciliate in relation to complaints of discrimination in employment or occupation on any of a number of new grounds. These grounds are: age; medical record; criminal record; impairment; marital status; mental, intellectual or psychiatric disability; nationality; physical disability; sexual preference; and trade union activity. Discrimination on these grounds is not, however, actually made unlawful by the regulations.

The Privacy Commissioner

The Office of Privacy Commissioner was established on 1 January 1989 when the *Privacy Act 1988* commenced. The Privacy Commissioner is an ex-officio member of the

Human Rights and Equal Opportunity Commission.

The Privacy Act:

- establishes standards for the handling of personal information by Commonwealth agencies (the Information Privacy Principles);
- establishes guidelines for protecting the privacy of tax file numbers (the *Tax File Number Guidelines*); and
- establishes a regime for protecting the privacy of individuals' consumer credit records.

The Privacy Act also defines the role, powers and functions of the Privacy Commissioner. The functions can be divided broadly into the following areas:

- the investigation of complaints about practices which may breach the Information Privacy Principles, the Tax File Number Guidelines, or the Act's provisions relating to credit reporting;
- ensuring, by way of audits, compliance with the Tax File Number Guidelines, the Information Privacy Principles, and the provisions relating to credit reporting;
- issuing Guidelines required by the Privacy Act and other Guidelines as necessary to assist agencies avoid breaching the Act; (under this power the Privacy Commissioner is preparing Guidelines relating to data matching by Commonwealth agencies);
- advising on developments in technology and privacy policy issues; and
- examination of proposed legislation and advising the relevant Minister of State on its privacy implications.

Freedom of Information Act

The *Freedom of Information Act 1982* has two objectives:

- to make available to the public information about the rules, practices and operations of Australian Government departments and authorities; and
- to create a general right of access to documents in the possession of Commonwealth Ministers of State and Commonwealth agencies.

In order to achieve these objectives the Act defines the rights of members of the public to obtain access to documents, and sets out a range of obligations and restrictions on Commonwealth agencies and the public for exercising these rights.

The right of access does not extend to all documents or to all agencies. Exempt documents include:

- documents that affect the national security, defence, international relations and relations with States;
- Cabinet and Executive Council documents;
- unreasonable disclosure of internal working documents;
- documents that affect enforcement of the law and protection of public safety;
- other documents that are exempt by reason of secrecy provisions listed in Schedule 3 of the Act, financial or property interests of the Commonwealth of Australia, personal privacy and legal professional privilege;
- documents concerning business affairs or confidential material; and
- documents made available for purchase or open access upon payment of a fee.

Agencies which are exempt either wholly or in relation to certain of their competitive commercial activities include security intelligence agencies, and those agencies which are wholly or partly engaged in commercial activities in competition with the private sector. These agencies are listed in Parts 1 and 2 of Schedule 2 to the Act.

The Act contains extensive provisions for review of decisions made under the Act, including review by the Administrative Appeals Tribunal and the Commonwealth Ombudsman.

OTHER COMMONWEALTH BODIES

Commonwealth Royal Commissions

Australian Governments have, from time to time, established Royal Commissions to inquire into, and report on, matters of public concern.

A Royal Commission is established by the Governor-General, on the advice of the Australian Government, issuing a commission to a person or persons to inquire into and report on specified matters. At the end of its inquiry, a Royal Commission presents its report to the Governor-General for consideration by the Government. These reports are usually also tabled in the Commonwealth Parliament.

The power to issue Letters Patent to inquire is a prerogative of the Crown. The *Royal Commissions Act 1902* confers powers on a Royal Commission to compel the attendance of persons, the giving of evidence, and the production of papers. It also creates a number of offences (e.g., failure to attend a Royal Commission when summoned, or failure to produce papers) and gives some protection to Commissioners and witnesses against legal liability. The constitutional foundation of the Royal Commissions Act is section 51(xxxix) of the Australian Constitution, which provides that the Commonwealth Parliament may make laws with respect to 'matters incidental to the execution of any power vested by this Constitution in the Parliament or in either House thereof, or in the Government of the Commonwealth, or in the Federal Judicature, or in any department or officer of the Commonwealth'.

Royal Commissions conducted between 1 July 1984 to 30 June 1991 are:

- The Royal Commission into British Nuclear Tests in Australia;
- The Royal Commission of Inquiry into Alleged Telephone Interceptions;
- The Royal Commission of Inquiry into Chamberlain Convictions;
- The Royal Commission into Grain Storage, Handling and Transport; and
- The Royal Commission into Deaths in Custody of Aboriginals and Torres Strait Islanders.

National Crime Authority

The National Crime Authority (NCA) was established by the Commonwealth Government in July 1984 as provided by the *National Crime Authority Act 1984*. Similar legislation was passed in each State and the Northern Territory to underpin the work of the NCA in those jurisdictions, making the NCA the only law enforcement agency in Australia whose investigations are not limited by jurisdictional or territorial boundaries.

The decision to establish the NCA was taken in response to the findings of several Royal Commissions conducted in the late 1970s and early 1980s, which revealed the extent of organised criminal activity in Australia. The NCA's primary aim is therefore to take effective action to reduce the incidence and impact of organised crime in Australia, but the term 'organised crime' is not in fact used in the *National Crime Authority Act 1984*, which instead describes such activity in terms of 'relevant criminal activity' and 'relevant offence'.

In conducting investigations, the NCA is required to assemble admissible evidence relating to offences against the laws of the Commonwealth, States or Territories to enable the prosecution of offenders and to provide that evidence to the appropriate Attorney-General or relevant law enforcement agency, such as the Director of Public Prosecutions.

Information may be passed to prosecution authorities to enable such agencies to pursue civil remedies or other action to confiscate the proceeds of criminal activity.

The NCA may also make recommendations to relevant ministers for law or administrative reform.

Apart from the normal powers of a law enforcement agency, the NCA may use special powers when it has been given a reference by a member of the Inter-Governmental Committee. These powers include the power to issue summonses and conduct in-camera hearings at which witnesses are required to give evidence or produce documents, and the power to seek the delivery to the NCA of the passport of a person who has been summonsed to appear at a hearing, but who is suspected of seeking to leave Australia.

The work of the NCA is monitored by the Inter-Governmental Committee and by the Parliamentary Joint Committee on the NCA. The Act provides for the review by the Federal Court of certain decisions, and other decisions are subject to review pursuant to the *Administrative Decisions (Judicial Review) Act 1977*.

Consumer affairs

The Commonwealth involvement in consumer affairs derives substantially from the *Trade Practices Act 1974*. The Commonwealth Attorney-General has responsibility for Part V (Consumer Protection) of the Act that deals with unfair practices, provides private law rights against sellers, manufacturers and importers, and provides for product safety (including provision for the banning and/or recall of goods considered to be unsafe) and information standards.

The Federal Bureau of Consumer Affairs, located in the Attorney-General's Department:

- provides the Minister for Justice and Consumer Affairs with advice on the consumer protection provisions of the Trade Practices Act and on a range of consumer issues;
- reviews and develops Commonwealth policy on recalls and consumer product safety;
- reviews and develops Commonwealth policy on packaging and labelling; and
- administers product safety and information standards of the Trade Practices Act, including monitoring and enforcing compliance with standards and initiating product recalls if necessary.

The National Consumer Affairs Advisory Council provides independent advice to the Minister for Justice and Consumer Affairs on consumer affairs issues. The members of this Council have backgrounds in consumer affairs, industries, trade unions and government.

The Trade Practices Commission is generally responsible for the administration and enforcement of the Trade Practices Act, except for Division 1A of Part V of the Act. The Commission receives complaints from consumers but is primarily concerned with issues of national significance. The activities of the Trade Practices Commission are distinct from those of Australian State and Territory consumer affairs agencies, which administer their own legislation and provide the principal consumer complaint handling mechanisms.

Coordination of consumer affairs activities is undertaken by the Standing Committee of Consumer Affairs Ministers and through meetings of Officers of Consumer Affairs. There is also a Commonwealth/State Consumer Products Advisory Committee to provide a coordinated approach to product safety and information matters. The Commonwealth Government also promotes consumer awareness through financial support to two peak consumer organisations — the Australian Federation of Consumer Organisations and the Australian Financial Counselling and Credit Reform Association.

LEGAL AID

The objective of the Commonwealth's legal aid scheme is to maximise access to justice by all members of the community.

Legal aid policy and service development, evaluation and coordination is largely undertaken at the Commonwealth level by the Office of Legal Aid and Family Services and delivered throughout the country by independent Legal Aid Commissions, Aboriginal Legal Services and other community based legal centres and services.

The Commonwealth provides over half of the funding for legal aid, with the rest made up by State Government, Law Society trust account funds and contributions from clients. Legal aid services and advice are provided directly by staff lawyers or by way of subsidies to the private legal profession. Assistance is directed to those persons who are most in need by way of merit and means tests.

In addition to the provision of services in family, criminal, civil and administrative law matters by the agencies described above, the Commonwealth Attorney-General's Department also provides assistance for special interest and test cases, Royal Commission hearings, War Crimes cases, veterans matters, internal disputes in federal trade unions and actions under international conventions (e.g., relating to child abduction, overseas maintenance and civil and political rights).

THE POLICE

The principal duties of the police are the prevention and detection of crime, the protection of life and property, and the enforcement of law to maintain peace and good order. In addition, they may perform a variety of other duties in the service of the State, including the regulation of street traffic, acting as clerks of petty sessions, Crown land bailiffs, foresters, mining wardens and inspectors under the Fisheries and other relevant Acts. With the exception of the Australian Federal Police, police forces in Australia are under the control of the respective State and Northern Territory Governments, but their members perform certain functions on behalf of the Australian

Government, such as the registration of aliens, and, in conjunction with the Australian Federal Police and other Commonwealth officers, they enforce various Commonwealth Acts and Regulations.

Australian Federal Police (AFP)

The AFP was formed in October 1979 and has its headquarters in Canberra. Its Criminal Investigations Program is conducted through six Regional Commands, its Headquarters Investigations Department and its 18 Liaison Officer posts overseas. A group of AFP members is attached to the United Nations Peacekeeping Force on Cyprus. In the Australian Capital Territory, the AFP provides a full range of general community policing services, including traffic control, special operations, search and rescue services and conventional crime investigations.

The objectives of the AFP are:

- to enhance the Commonwealth's ability to prevent, detect, investigate, and present for prosecution, criminal offences committed against its laws, revenue and expenditure;
- to continue to improve the quality and responsiveness of police services provided to the community of the Australian Capital Territory;
- to improve the quality of police services required to protect other Commonwealth interests;
- to provide leadership in developing effective relationships with other police services, law enforcement and related agencies to ensure cohesion and coordination in countering criminal threats and activities against the Australian Community;
- to maintain operational excellence through people, technology and leadership; and
- to foster a culture which demonstrates reliability, integrity and ethical behaviour and respects the rights of the individual.

Police strengths

The total active strength of the sworn police forces, expressed as a proportion of the population, was approximately 232 police for every 100,000 people at 30 June 1989. The following table shows the active strengths of non-civilian police personnel in police forces in Australia from 1987 to 1989. Further detail on the operations of each force may be found in the respective police annual reports to their Ministers.

POLICE FORCES

Year	*AFP(a)*	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*
At 30 June								
1987	2,642	11,608	8,796	5,072	3,646	3,287	1,010	681
1988	2,713	12,280	9,229	5,085	3,549	3,243	1,028	748
1989	2,580	12,568	9,678	5,219	3,565	3,572	1,075	746

(a) Excludes protective services units.

CRIME STATISTICS

Crimes against the Commonwealth

The Australian Federal Police are responsible for the prevention, detection and investigation of criminal offences such as drug offences, money laundering, organised crime, identifying the proceeds of crime, and fraud against Commonwealth revenue and expenditure, e.g., social security fraud and taxation fraud.

During 1990–91 the Australian Federal Police undertook 11,687 matters involving drugs, minor fraud, general crime, currency offences and other significant referrals. In addition it had 29 major fraud matters referred totalling $235.19 million.

CRIMES AGAINST THE COMMONWEALTH NATIONAL CRIMINAL INVESTIGATIONS, 1990–91

Analysis of investigations	*Number*
Drugs	
Matters referred for investigation	4,717
Referred matters not investigated	965
Registered operations	
Initiated	195
Completed	127
Arrest, summonses and warrants of apprehension issued	771
Convictions	320
Large-scale fraud	
Matters referred for investigation	29
Operations completed	15
Arrest, summonses and warrants of apprehension issued	75
Convictions	10
Lesser fraud (under $500,000)	
Matters referred for investigation	4,035
Referred matters not investigated	95
Investigations	
Initiated	3,940
Completed	2,320
Arrest, summonses and warrants of apprehension issued	2,275
Convictions	671
General crime	
Matters referred for investigation	2,152
Referred matters not investigated	37
Investigations	
Initiated	2,115
Completed	1,569
Arrest, summonses and warrants of apprehension issued	646
Convictions	143
Specific references	
Matters referred for investigation	13
Referred matters not investigated	—
Investigations completed	15
Arrest, summonses and warrants of apprehension issued	—
Convictions	—
Currency matters	
Matters referred for investigation	770
Investigations completed	724
Currency seizures	897
Arrest, summonses and warrants of apprehension issued	8
Convictions	15

Source: Australian Federal Police.

The *Proceeds of Crime Act 1987* came into force on 5 June 1987 and provides for the confiscation of assets derived from criminal conduct including drug trafficking. Similar provisions in the *Customs Act 1901* (which were enacted in 1979) provide for forfeiture and the imposition of pecuniary penalties in narcotic related matters. At 30 June 1990, as a result of action taken under the Proceeds of Crime Act, recoveries totalling $2.24 million had been made. In addition there were 81 current orders over property valued at $39.1 million.

All States with the exception of Tasmania have enacted confiscation legislation. In the case of Tasmania, the *Poisons Act 1971* contains provision for the forfeiture of assets which have been acquired from narcotic-related activities.

The Cash Transaction Reports Act enacted in 1988 requires mandatory reporting to the Cash Transaction Reports Agency by cash dealers of cash transactions of $10,000 or more ($5,000 in the case of an international transaction), suspect transactions, and verification of the identity of anyone opening accounts with cash dealers.

Drug offences

Australia ratified the Single Convention on Narcotic Drugs 1961 in December 1967, and the Protocol Amending the Single Convention on Narcotic Drugs on 22 December 1972.

Australia is also a signatory to the Convention on Psychotropic Substances 1971, and there is cooperation between the Commonwealth Government, State and Territory Governments, the various police forces, and other agencies in order to combat the perceived serious and growing threat to good order which is posed by the traffic in and abuse of drugs of dependence. The Australian Customs Service has responsibility for the enforcement of laws controlling the illicit importing and exporting of drugs, but each police force has a drug squad or squads, staffed by selected officers with special training and ability to understand the complexities of drug abuse and drug trafficking. Drug laws incorporate the controls and penalties for offences as required by international drug conventions.

The following table provides information about selected drug seizures by Commonwealth agencies during the period from 1985 to 1990.

SELECTED DRUG SEIZURES(a) BY COMMONWEALTH AGENCIES(b)

Type of drug	*Unit*	*1985*	*1986*	*1987*	*1988*	*1989*	*1990(c)*
Cannabis(d)	gram	3,145,064	2,984,909	540,023	9,016,699	232,064	2,477,914
Amphetamines	. .	n.a.	n.a.	n.a.	290	35,576	2,548
Cannabis oil	gram	41	2,856	23	58,897	874	14,700
Heroin	gram	57,247	30,937	60,202	93,347	98,997	84,330
Morphine	gram	(e)8,225	640	470	10	139	12,232
Cocaine	gram	12,815	21,581	10,226	n.a.	45,295	66,309
Opium(f)	gram	764	166	48	116	13	899
LSD	gram	n.a.	n.a	n.a.	n.a.	28	6

(a) Annual totals of illicit drugs seized cannot be regarded in isolation as a measure of enforcement performance, any more than they can be said to be indicative of the relative availability of illicit drugs. Not all weights have been confirmed by analysis. (b) Includes Australian Customs Service, Australian Federal Police and National Crime Authority. (c) Figures are partially based on estimated weights and will change following analysis. (d) Cannabis includes tops, seeds and resin. (e) The 1985 total of morphine included a seizure of 4,889gm of crude extract which had a total morphine content of only some 50gm. (f) Opium excludes seeds.

Source: Australian Federal Police.

Further information on the widespread problems arising from drug abuse in Australia, and how these problems are being approached, may be found in the annual report *Illicit Drugs in Australia*, by the Australian Federal Police.

CORRECTIVE SERVICES

The term 'correction' (or its derivatives) as used here refers to the objectives of the criminal justice system regarding detention and supervision of offenders.

The principal objectives of sentencing are to deter potential offenders, to express society's disapproval, to reduce the opportunity for further crime, to rehabilitate the offender, and to compensate the victim(s).

These objectives are reflected to varying degrees in the different forms of correctional options which are available to the courts in each State and Territory. These options fall broadly into three main categories:

- those that do not involve supervision or detention of the offender, such as fines, bonds and unsupervised recognisances;

- those involving supervision in the community, usually for a specified period, or until some educational or community reparative target is achieved, such as probation or community service orders; and
- those involving detention, either in prisons or other institutions, or at home subject to a home detention order.

In recent years it has become common for courts to impose sentences combining several different components, in order to ensure that the punishment is appropriate to the crime and the circumstances of the offender.

All States and the Northern Territory operate prisons and other correctional services. Separate provisions exist in each State and Territory for dealing with juvenile offenders. Convicted adult prisoners from the Australian Capital Territory serve their sentences in New South Wales prisons, but local provision is made for the short-term custody of remand prisoners, and for probation and parole services. The Commonwealth Government does not operate any prisons or other correctional services, and federal offenders (i.e., persons convicted of offences under Commonwealth laws) fall within the jurisdiction of State agencies for correctional purposes.

Characteristics of prisoners

The Australian Institute of Criminology conducts an annual prison census of all persons, convicted or not convicted, who were held in custody in gazetted Australian prisons, for adult offenders on the night of 30 June, including those prisoners temporarily absent from prison (e.g., prisoners in hospitals, or away on work release schemes).

NUMBER OF SENTENCED PRISONERS
BY TYPE OF SENTENCE IMPOSED(a)
30 JUNE 1990(b)

Type of sentence	*Number of prisoners*
Life	646
Governor's pleasure	90
Administrative(b)	9
Indefinite(c)	4,721
Fixed term	5,907
Fine default only	150
Periodic detention	828
Unknown	20
Total	**12,371**

(a) Type of sentence is determined by the cumulative effect of all sentences imposed. (b) Includes unsentenced prisoners subject to deportation orders. (c) Refers to cases where both a minimum and a maximum term are set and the actual sentence to be served lies somewhere between the two limits.

NOTE: This table excludes all remandees.

Source: Australian Institute of Criminology.

NUMBER OF PRISONERS BY MOST SERIOUS OFFENCE/CHARGE(a)
BY AGE(b), 30 JUNE 1990

	Age group									
Offence/charge(a)	*Under 20*	*20–24*	*25–29*	*30–34*	*35–39*	*40–44*	*45–49*	*50+*	*Unknown*	*Total*
Homicide	48	256	273	251	190	160	107	148	15	1,448
Assault	127	426	330	197	128	55	33	29	16	1,341
Sex offences	52	226	246	253	198	176	111	140	15	1,417
Other against person	10	34	38	32	19	9	5	5	2	154
Robbery	100	455	413	326	144	87	24	19	2	1,570
Extortion	3	10	6	7	—	1	2	—	—	29
Break and enter	270	828	527	311	156	49	20	20	13	2,194
Fraud and misappropriation	24	88	106	95	98	70	59	64	—	604
Receiving	23	80	73	50	33	20	11	10	—	300
Other theft	222	476	298	164	95	34	16	20	7	1,332
Property damage	24	60	43	25	16	14	5	5	3	195
Environmental	—	—	—	2	1	—	—	1	—	4
Government security	—	1	1	5	1	—	—	5	0	13
Justice procedures	94	263	195	118	59	55	16	22	29	851
Unlawful possession of weapon	4	10	12	13	9	2	4	3	0	57

For footnotes *see* end of table.

NUMBER OF PRISONERS BY MOST SERIOUS OFFENCE/CHARGE(a) BY AGE(b), 30 JUNE 1990 — *continued*

	Age group									
Offence/charge(a)	*Under 20*	*20–24*	*25–29*	*30–34*	*35–39*	*40–44*	*45–49*	*50+*	*Un-known*	*Total*
Other offences against good order	10	37	34	18	15	8	8	6	2	138
Possession, use of drugs	5	19	48	38	32	18	6	3	—	169
Deal/traffic drugs	13	101	180	262	210	134	73	66	1	1,040
Manufacture/grow drugs	5	16	16	29	27	19	12	13	1	138
Driving offences	12	96	130	97	72	43	23	17	15	505
Licence, registration	9	49	55	48	26	21	5	11	5	229
Other traffic offences	23	80	69	37	14	16	7	5	—	251
Other offences	11	31	39	60	55	38	29	34	17	314
Offences in custody	1	1	—	—	—	—	—	—	—	2
Unknown	1	3	2	2	—	1	—	1	—	10
Total persons	**1,091**	**3,646**	**3,134**	**2,440**	**1,598**	**1,030**	**576**	**647**	**143**	**14,305**

(a) The most serious offence/charge is that offence for which a prisoner received the longest sentence, or that charge which carries the longest statutory maximum penalty. (b) The age at which a convicted person would normally become liable to imprisonment in an adult prison varies from State to State, being seventeen years in Victoria, Queensland, Tasmania and Northern Territory, and eighteen in other jurisdictions, although younger persons convicted of a particularly serious offence may be sent to an adult prison. Inmates of juvenile corrective institutions are not included in this census.

NOTE: This table includes 1,913 remandees not convicted, awaiting sentence or deportation, and 21 whose legal status was not known or stated in the prison census.

Source: Australian Institute of Criminology.

NUMBER OF SENTENCED PRISONERS BY MOST SERIOUS OFFENCE(a) AND AGGREGATE SENTENCE(b), 30 JUNE 1990

	Duration of aggregate sentence						
Offence	*Periodic detention*	*Under 3 months*	*3 months and under 2 years*	*2 and under 5 years*	*5 and under 10 years*	*10 years and over(c)*	*Total*
Homicide	20	—	32	79	205	894	1,230
Assault	120	39	487	238	149	69	1,102
Sexual assault	59	1	114	323	516	251	(d)1,266
Other offences against the person	1	1	27	32	44	11	116
Robbery	13	1	57	349	586	338	1,344
Extortion	2	—	5	7	10	1	25
Break and enter	61	21	816	698	281	52	1,929
Fraud and misappropriation	40	19	251	160	49	11	530
Receiving	23	7	126	66	22	5	249
Other theft	89	53	718	238	54	12	1,164
Property damage	13	17	62	53	17	4	166
Offences against good order(e)	59	89	492	177	70	35	922
Drug offences(f)	101	25	235	349	264	148	1,122
Driving offences	118	72	274	22	1	3	(d)491
Other offences(g)	109	67	343	55	94	47	715
Total persons	**828**	**412**	**4,039**	**2,846**	**2,362**	**1,881**	**(d)12,371**

(a) Most serious offence is that for which a prisoner received the longest sentence. (b) The longest period that a person may be detained under sentence in the current episode. (c) Includes sentences of life and detention at the Governor's pleasure. (d) Total includes 'unknown' duration of sentence. (e) Includes environmental, government security, justice procedures, offensive behaviour and possession of weapon. (f) Includes possession, trafficking and manufacture of drugs. (g) Includes other offences and unknown offences.

NOTE: This table excludes all remandees.

Source: Australian Institute of Criminology.

CRIMINOLOGICAL RESEARCH

Australian Institute of Criminology

The Australian Institute of Criminology was established as a statutory authority under the *Criminology Research Act 1971* and the *Criminology Research Amendment Act 1986.*

The functions of the Institute, as defined in the Criminology Research Acts include:

- the conduct of criminological research (i.e., research in connection with the causes, prevention and correction of criminal behaviour and related matters), and the communication of the results of such research to the Commonwealth and States;
- the provision of advice on needs and programs relating to criminological research, and advice and assistance in relation to any research funded through the criminology research council;
- the conduct of seminars and courses of training and instruction for persons engaged in criminological research or work related to the prevention or correction of criminal behaviour;
- the collection and dissemination of statistics relevant to crime and criminal justice;
- the provision of advice in relation to the compilation of statistics in relation to crime; and
- the publishing of material resulting from, or relating to, its activities.

BANKRUPTCY AND COPYRIGHT

Bankruptcy

Bankruptcy is a statutory regime for the release of debtors from the payment of their debts and the repayment of creditors out of the proceeds of realisation of the debtor's property. The *Bankruptcy Act 1966* is the current Commonwealth law dealing with the insolvency of individuals and partnerships.

The Bankruptcy Act provides for both voluntary and involuntary bankruptcy, and for insolvency administrations outside bankruptcy under Part X. The alternative administrations are the deed of assignment, the deed of arrangement and the composition. The Act also provides, in Part XI, for the administration of deceased estates in bankruptcy. It is a feature of bankruptcy and the alternative administrations that property or money belonging to the debtor, or given to the debtor for the purpose, is vested in a trustee for rateable distribution to creditors.

The Act establishes the Official Trustee in Bankruptcy, the functions of which are to administer bankrupt estates and bankrupt deceased estates. The Official Receivers in Bankruptcy, who are officers of the Attorney-General's Department and staff of their offices, perform the functions of the Official Trustee. The Official Trustee is trustee in excess of 90 per cent of bankrupt estates, and of all bankrupt deceased estates.

The Act also provides for registration of appropriately qualified persons, usually accountants, as trustees. Registered trustees administer some bankruptcies, but are responsible mainly for the administration of deeds and compositions under Part X of the Act. Registered trustees are registered by order of the Federal Court of Australia.

Comprehensive statistics on bankruptcy, and a more detailed account of the bankruptcy administration, are included in the Annual Report on the operation of the *Bankruptcy Act 1966.*

BANKRUPTCIES

	Bankruptcies and orders for administration(a)		
Year	*Number administered*	*Assets $m*	*Liabilities $m*
1986–87	7,534	49.6	434.9
1987–88	8,504	62.3	511.8
1988–89	7,435	88.1	571.7
1989–90	8,552	145.4	643.5
1990–91	13,091	318.4	792.8

(a) Orders for administration of deceased persons estates.

Source: Commonwealth Attorney-General's Department — Insolvency and Trustee Service, Australia.

CAUSES OF BUSINESS BANKRUPTCY(a)

Cause	*1986–87*	*1987–88*	*1988–89*	*1989–90*	*1990–91*
Lack of sufficient capital(b)	336	491	491	562	534
Lack of business ability(c)	652	581	489	721	963
Failure to keep proper books	27	12	26	12	34
Economic conditions(d)	510	339	240	524	1,233
Seasonal conditions(e)	44	28	30	52	57
Excessive interest(f)	151	145	95	172	267
Inability to collect debts(g)	78	63	76	107	120
Excessive drawings(h)	92	110	129	78	102
Gambling	13	20	15	18	26
Personal reasons(i)	198	147	121	267	279
Other	345	323	465	435	588
Total	**2,446**	**2,259**	**2,177**	**2,948**	**4,203**

(a) The sum of business and non-business bankruptcies shown in the tables on the major causes of bankruptcy do not add to the totals shown in the table 'Bankruptcies'. The discrepancy is due to the failure of some registered trustees to provide statistical returns. (b) Lack of sufficient initial working capital. (c) Lack of business ability, acumen, training or experience resulting in such matters as underquoting, mistakes in estimating, lack of supervision and failure to assess potential of business or to detect misrepresentations. (d) Economic conditions affecting industry, including competition and price cutting, credit restrictions, fall in prices, increases in charges and other overhead expenses, high cost of repairs and maintenance of equipment and changes in the character of business location (e.g., by-pass roads). (e) Seasonal conditions including floods and drought. (f) Excessive interest payments on hire purchase and loan monies and capital losses on repayments. (g) Inability to collect debts due to disputes, faulty work or bad debts. (h) Excessive drawings including failure to provide for taxation, either personal or wage tax deductions. (i) Personal reasons including ill health of self or spouse, domestic discord and other personal reasons.

Source: Commonwealth Attorney-General's Department — Insolvency and Trustee Service, Australia.

CAUSES OF NON-BUSINESS BANKRUPTCY(a)

Cause	*1986–87*	*1987–88*	*1988–89*	*1989–90*	*1990–91*
Excessive use of credit(b)	2,038	2,937	2,560	2,098	3,203
Liabilities on guarantees	297	249	273	279	551
Unemployment	1,019	1,214	699	1,225	2,269
Gambling(c)	67	72	63	133	90
Ill health(d)	242	285	259	409	426
Adverse litigation	177	171	205	218	238
Domestic discord	291	221	245	362	623
Other	862	716	935	822	1,488
Total	**4,993**	**5,865**	**5,239**	**5,546**	**8,888**

(a) The sum of business and non-business bankruptcies shown in the tables on the major causes of bankruptcy do not add to the totals shown in the table 'Bankruptcies'. The discrepancy is due to the failure of some registered trustees to provide statistical returns. (b) Excessive use of credit facilities including pressure selling, losses on repossessions and high interest rates. (c) Gambling, speculation and extravagance in living. (d) Absence of health insurance or extensive ill health.

Source: Commonwealth Attorney-General's Department — Insolvency and Trustee Service, Australia.

INSOLVENCIES(a)

	Deeds of Assignment			*Deeds of Arrangement*		
Year	*Number*	*Assets $m*	*Liabilities $m*	*Number*	*Assets $m*	*Liabilities $m*
1986–87	451	19.3	65.7	293	60.7	97.7
1987–88	400	12.5	93.9	434	10.8	36.7
1988–89	228	11.6	40.7	263	5.4	30.0
1989–90	197	8.3	28.1	156	2.3	5.4
1990–91	185	7.9	54.6	279	8.7	60.1

For footnotes *see* end of table.

INSOLVENCIES(a) — *continued*

	Compositions			Total		
Year	*Number*	*Assets $m*	*Liabilities $m*	*Number*	*Assets $m*	*Liabilities $m*
1986–87	483	5.1	48.5	1,227	85.1	211.9
1987–88	451	4.0	43.9	1,285	27.4	174.6
1988–89	304	3.0	43.9	795	20.0	114.6
1989–90	208	1.9	34.0	561	12.5	67.5
1990–91	341	2.9	57.0	805	19.5	171.8

(a) Under Part X of the Bankruptcy Act.

Source: Commonwealth Attorney-General's Department — Insolvency and Trustee Service, Australia.

Copyright

Copyright in Australia is administered by the Commonwealth Attorney-General's Department and is regulated by the Commonwealth *Copyright Act 1968*. The Act does not contain any provisions requiring or enabling the completion of formalities (such as publication, registration or the payment of fees) in order to obtain copyright protection in Australia. Protection is granted automatically from the moment of making a work or other subject matter.

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FOR MORE INFORMATION

The ABS has a far wider range of information on Australia than that contained in the *Year Book*. Information is available in the form of regular publications, electronic data services, special tables and from investigations of published and unpublished data.

For further information contact ABS Information Services at one of the addresses listed on the page facing the Introduction to the *Year Book*.

Chapter Twelve

Culture and Leisure

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Cultural and leisure activities are essential to a shared sense of quality of life, and take many forms. At a national level these forms range across cultural heritage, creative and performing arts, literature, film and video, libraries, radio and television, sports and games, language and religious practice, adult education, active attachment to custom and place, and activities around the conservation and enjoyment of the natural environment.

Tourism is closely bound to cultural and leisure activities. Cultural and recreational venues and events attract visitors; events and institutions are linked both to tourist patronage and to support from local populations; while a general perception of the vitality of these activities is an important factor in drawing visitors from overseas.

This chapter reviews cultural and leisure activity supported by the Commonwealth and its agencies, and by national non-government organisations.

CULTURAL AND NATURAL HERITAGE

Australia's heritage is drawn from its cultural and natural environments. The cultural environment includes historic places such as old residential, commercial and industrial buildings, streetscapes, towns and gardens, and Aboriginal sites. The natural environment encompasses places which can range from wilderness areas and extensive stretches of coast, forest, wetland and desert, outstanding geological features and landscapes, to smaller sites which may be important habitats for native flora and fauna.

The functions of identifying and conserving Australia's national heritage are shared between all levels of government. The voluntary conservation movement, including National Trusts and other conservation bodies in each State, as well as academic and professional bodies and concerned individuals, have played a major role in alerting governments to conservation needs.

Consolidated statistics relating to heritage are not available, although information on specific funding programs, such as the National Estate Grants Program, and discrete activity by individual organisations, is published in various annual reports and in reports of some special inquiries into heritage.

Governments support delineation and conservation of heritage by establishing statutory authorities charged with providing policy advice and by undertaking, or sponsoring, research and by administering grants for heritage related activities.

While the Commonwealth Government works in partnership with State and Territory Governments, it also undertakes some national heritage activities on its own account. Some examples include the nomination of sites for World Heritage Listing, the protection of Aboriginal heritage and advice about proposals which might affect the National Estate. These functions are administered respectively by the Department of the Arts, Sport, the Environment and Territories, the Australian Heritage Commission, and the Aboriginal and Torres Strait Islander Commission.

National Estate

Australia's National Estate comprises those natural, Aboriginal and historic places which Australians want to keep for present and future generations.

In the Australian Heritage Commission Act the National Estate is defined as:

> '... those places, being components of the natural environment of Australia or the cultural environment of Australia that have aesthetic, historic, scientific or social significance or other special value for future generations, as well as for the present community.'

Both publicly and privately owned places form part of the National Estate. It encompasses places which are important to local communities, as well as those which are of regional or State significance, and others which have national, and sometimes international significance.

The National Estate includes broad stretches of coastline, desert or forest, and national parks, as well as isolated geological monuments and small areas which might provide habitats for endangered plant or animal species. It can cover whole villages and suburbs, streetscapes, single mansions, cattlemen's huts, railway yards and other reminders of Australia's industrial heritage. And it includes places of

Aboriginal significance such as rock engravings, galleries of rock art, fish traps, carved trees and reminders of a post-European existence such as mission stations.

Australian Heritage Commission

The Australian Heritage Commission, established under the *Australian Heritage Commission Act 1975*, is the Commonwealth Government's adviser on the National Estate.

To fulfil its statutory responsibilities, the Commission:

- Advises the Commonwealth Minister responsible for the environment (currently the Minister for the Arts, Sport, the Environment and Territories) on all National Estate matters.
- Advises Commonwealth Ministers and authorities on Commonwealth Government proposals which might affect the National Estate.
- Identifies the National Estate and maintains an inventory of these places — The Register of the National Estate.
- Develops policies and programs for public information, education, research and professional training on the National Estate.

- Develops policies and programs for public information, education, research and professional training on the National Estate.

- Coordinates the National Estate Grants Program, a program of financial assistance for the identification and conservation of national estate places, and administers its national component.

One of the Commission's main tasks is compiling and maintaining the Register of the National Estate.

At June 30 1991 there were 9,961 natural, Aboriginal and historic places throughout Australia in the Register and 354 places on the Interim List of the Register. The Interim List includes those places which meet the criteria for entry in the Register, and are awaiting a period of up to three months for any public objections, based on national estate values prior to listing.

The following table summarises the 7,850 historic places across States and Territories listed on the Register of the National Estate at June 1991, 2,311 of these being residential houses.

HISTORIC ENVIRONMENT PLACES IN THE REGISTER OF THE NATIONAL ESTATE AT 30 JUNE 1991

	NSW	*Vic.*	*Qld.*	*SA*	*WA*	*Tas.*	*NT*	*ACT(a)*	*Ext. Terr.*	*Total*
Number listed(b)	2,616	1,912	510	693	813	1,101	95	104	6	7,850
Types of place										
Residential houses	644	770	113	134	177	441	11	20	1	2,311
Commercial buildings (shops, offices, etc.)	228	120	42	53	114	84	2	2	—	645
Hotels, motels, inns	133	71	28	26	50	74	2	4	—	388
Banks and financial institutions	62	53	17	18	14	9	—	—	—	173
Government functions										
Government buildings (parliaments, customs, town halls, etc.)	32	21	12	18	18	14	1	3	—	119
Courthouses, police stations, prisons	195	63	19	46	35	23	8	1	—	390
Libraries, hospitals, civic structures, etc.	105	55	14	19	19	11	6	4	—	233
Military barracks, bases, fortifications	41	22	10	5	7	14	10	3	—	112
Scientific research facilities	3	3	—	—	—	—	—	1	—	7
Places of recreation (theatres, halls, race courses, etc.)	65	77	21	21	36	28	—	5	—	253
Transport and communications										
Rail, road and air transport places	52	24	12	13	15	7	8	—	—	131
Harbour facilities, ports, piers, docks, etc.	8	6	1	3	2	2	1	—	—	23

For footnotes *see* end of table.

HISTORIC ENVIRONMENT PLACES IN THE REGISTER OF THE NATIONAL ESTATE AT 30 JUNE 1991 — *continued*

	NSW	*Vic.*	*Qld.*	*SA*	*WA*	*Tas.*	*NT*	*ACT(a)*	*Ext. Terr.*	*Total*
Lighthouses	24	10	3	16	6	13	2	1	—	75
Post offices, telegraph stations, etc.	66	29	14	14	22	15	5	—	—	165
Bridges	85	60	32	38	6	18	1	1	—	241
Shipwrecks	—	3	—	6	43	1	1	—	—	54
Primary industry(agricultural, pastoral, processing, etc.)	155	189	31	52	63	141	7	17	2	657
Towns, precincts, conservation areas	207	46	15	34	27	27	4	8	1	369
Industrial sites and buildings	26	21	5	19	11	9	1	3	—	95
Mines and mineral processing works	9	8	21	15	4	2	2	—	—	61
Churches and other places of religion	202	152	58	83	58	99	4	9	1	666
Schools and places of education	138	57	11	25	37	32	1	7	—	308
Monuments and memorials	23	7	10	7	9	2	—	3	—	61
Cemeteries and graves	20	5	5	2	15	12	6	3	—	68
Parks and gardens	66	28	10	16	17	13	4	9	—	163
Historic and miscellaneous places	27	12	6	10	8	10	8	—	1	82

(a) Australian Capital Territory figures include Jervis Bay. (b) Includes both registered places and places on the interim list.
Source: Australian Heritage Commission Annual Report 1990–91.

The table below summarises the 1,698 natural places listed in the Register of the National Estate at June 1991. National parks (546), Other Reserves (616) followed by Landscapes (426) were the three largest categories of natural places protected under the National Estate Register.

NUMBER OF NATURAL PLACES LISTED IN THE REGISTER OF THE NATIONAL ESTATE JUNE 1991

Category	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Ext. Terr.*	*Total*
Number listed(a)	368	187	257	358	212	213	60	27	16	1,698
Category (number of places)										
National parks	65	42	171	154	47	45	19	2	1	546
Other reserves	170	87	44	73	134	74	22	5	7	616
Wilderness areas	22	13	25	22	5	20	5	2	—	114
Marine regions	7	6	16	22	13	18	3	—	3	88
Geological monuments	60	12	26	65	13	28	9	9	2	224
Wetlands	57	25	47	69	45	30	10	1	—	284
Arid regions	7	2	9	80	59	—	17	—	—	174
Alpine regions	1	3	—	—	—	18	—	1	—	51
Endangered species	55	23	23	67	27	56	14	5	3	273
Landscapes	186	44	46	50	36	52	6	3	3	426
Miscellaneous	18	10	6	19	15	3	16	8	—	95

(a) Includes both places on the register and on the interim list. Note that individual sites may be represented in more than one category.
Source: Australian Heritage Commission Annual Report 1990–91.

Listing in the Register alerts planners, decision makers, researchers and the community at large to the heritage value of places. Under section 30 of the Australian Heritage Commission Act it also obliges the Commonwealth Government to inform the Commission of any Commonwealth action which might significantly affect a place in the Register. If a place is in the Register or the Interim List, the Commonwealth Government is obliged to seek 'feasible and prudent' alternatives to actions that will damage a place in the Register and, if no such alternatives exist, to minimise any damage. Listing does not impose any direct legal constraints on the way private, or State or local government owners manage places in the Register.

Aboriginal heritage protection

The Aboriginal and Torres Strait Islander Commission has responsibility for the administration of the *Aboriginal and Torres Strait Islander Heritage Protection Act 1984.*

The Act preserves and protects places, areas and objects of particular significance to Aboriginal tradition. The legislation complements existing State and Territory laws, and is intended to be used only as a last resort where those laws do not provide effective protection from injury or desecration for significant Aboriginal areas and objects.

As can be seen from the table below, almost 37,000 Aboriginal sites are present on the registers of the Australian Heritage Commission and the State Aboriginal Sites Authorities.

ABORIGINAL SITES ON REGISTERS, 1986(a)

Registered with	*Number of sites*
Australian Heritage Commission	15,894
New South Wales National Parks and Wildlife Service	14,000
Victorian Archaeological Survey	7,700
Queensland Department of Community Services	2,600
Western Australian Museum	10,000
South Australia Department of Environment and Planning	4,000
Tasmanian National Parks and Wildlife Service	3,500
Northern Territory Museum and Art Gallery	2,000
Northern Territory Aboriginal Sacred Sites Authority	4,000
Total	**36,894**

(a) Components do not add to total as any one site may be listed on more than one register.
Source: Australian Heritage Commission, Sites and Bytes-Recording Aboriginal Places in Australia, 1989.

The following table provides a summary of the types of Aboriginal sites listed on the Register of the National Estate. In 1991, 767 Aboriginal sites were listed on the National Estate register. The two major site types protected under the National Estate, namely Aboriginal art sites (184) and Aboriginal site complexes (101) accounted for a total of 37.2 per cent of all sites listed on the register.

ABORIGINAL SITES IN THE REGISTER OF THE NATIONAL ESTATE AT JUNE 1991
(number)

Types of place	*NSW*	*Vic.*	*Qld.*	*SA*	*WA*	*Tas.*	*NT*	*ACT(a)*	*Total*
Aboriginal occupation site	16	8	17	4	9	20	3	2	79
Aboriginal shell midden	10	15	5	14	—	12	—	—	56
Aboriginal fish/eel trap	3	3	6	4	1	—	1	—	18
Aboriginal hunting hides/traps	—	—	3	—	1	—	—	—	3
Aboriginal grinding grooves	6	8	—	2	—	—	—	2	18
Aboriginal quarries	3	7	10	7	3	5	—	1	36
Aboriginal wells	1	3	4	3	—	—	—	—	11
Aboriginal modified trees (scarred and carved)	22	8	2	4	2	—	—	1	39
Aboriginal art sites	64	16	38	19	25	6	14	2	184
Aboriginal stone arrangements	9	4	7	25	3	3	—	1	52
Aboriginal ceremonial sites	5	3	—	10	—	—	—	—	18
Sites of spiritual or mythological significance	20	—	10	9	8	—	33	—	80
Aboriginal burials/cemeteries/graves	11	12	1	2	1	1	1	—	29
Aboriginal historic/contact sites	15	9	6	2	6	1	4	—	43
Aboriginal site complexes	18	4	15	15	14	12	23	—	101
Total of Aboriginal places listed(b)	**203**	**100**	**124**	**120**	**72**	**60**	**79**	**9**	**767**

(a) Australian Capital Territory figures include Jervis Bay. (b) Includes registered places and places on the interim list.
Source: Australian Heritage Commission Annual Report 1990–91.

Australian Council of National Trusts

The Australian National Trust movement is the major organisation promoting the conservation of Australia's cultural heritage. The Australian Council of National Trusts serves the national interests of the eight State and Territories Trusts.

Since the inception of the National Trusts in Australia, they have played a leading role in identifying those parts of our natural, Aboriginal and historical environment which are historically, aesthetically or scientifically significant and which are worthy of preservation.

Historic registers established by the Trusts in Australia include buildings, urban areas, landscapes and industrial sites.

The Trusts own a wide variety of properties, including historic buildings, nature reserves, gardens and two paddle steamers. All properties are open for the enjoyment of Australians and international visitors alike. The National Trusts are community organisations with membership open to everyone.

AUSTRALIAN NATIONAL TRUSTS

			Properties classified/listed by National Trusts	
State/Territory	*Number of Trusts members 1990–91*	*Number of volunteers*	*1990–91*	*Total*
New South Wales	29,000	1,500	100	14,000
Victoria	24,590	2000	129	3,973
Queensland	5,729	175	24	1,432
Western Australia	2,371	300	75	2,300
South Australia	6,759	2000	(a)	(a)
Tasmania	4,500	1000	29	2974
Northern Territory	516	80	28	358
Australian Capital Territory	1,200	200	12	201

(a) Function of S.A. State Heritage Branch since 1 January, 1991.
Source: Australian Council of National Trusts.

Protection of movable cultural heritage

The *Protection of Movable Cultural Heritage Act 1986* provides safeguards for the retention of those objects of the greatest heritage significance by requiring export permits for particular categories of objects of cultural significance which owners wish to send or take out of the country.

As a general rule objects of Australian Aboriginal and Torres Strait Islander heritage comprising bark and log coffins, human remains, rock art, and carved trees are not allowed to be sent or taken out of the country.

Objects that may be exported (temporarily or permanently) at the discretion of the Minister for the Arts, Sport, the Environment and Territories include:

- archaeological and ethnographic objects;
- some Aboriginal heritage objects;
- objects of geological, scientific or technological interest;
- military objects;
- pieces of decorative art, fine arts, books, film and sound recordings;
- numismatic and philatelic objects; and
- objects of social history.

National collections

The Commonwealth has maintained extensive collections since Federation. Almost all government institutions since Federation have maintained collections in recognition of the nation's development and cultural identity, and of the value which future generations would place on them. Even comparatively new institutions such as the Australian National Gallery, the National Museum of Australia and the National Film and Sound Archive have origins going back some considerable time.

National Film and Sound Archive

The National Film and Sound Archive is a national body for collecting and preserving Australia's moving image and recorded sound heritage. Its collection of film, television, radio, sound recordings and related documentation ranges from the 1890s to the present day.

During 1991, the Archive engaged in a major reorganisation of its massive collection, which resulted in services to the public being cut back with most of the collection being made inaccessible for the duration of the project. A very limited service is still being offered by State Offices and access centres.

Australian National Maritime Museum

The Australian National Maritime Museum, at Darling Harbour, Sydney, has been established by the Commonwealth Government to increase knowledge, appreciation and enjoyment of Australia's past and continuing involvement with the sea. After several years of planning and preparation, it opened on 30 November 1991.

Four galleries house the permanent exhibitions, including the largest, the ANZ Tall Gallery, and the United States of America Gallery which is funded by a $US5 million Bicentennial gift from the USA.

The building also includes a gallery for temporary and visiting exhibitions, a 200-seat theatre, the Cunard Members Lounge, and other tourist facilities.

The Museum presents its exhibitions on six themes:

- Discovery — the finding of Australia;
- Passengers — the long sea voyage;
- Commerce — the working sea;
- Navy — protecting Australia;
- Leisure — sun, surf and sails; and
- Australia–USA — linked by the sea.

The Museum's National Maritime Collection comprises more than 12,000 items ranging in size from historic vessels to tunic buttons.

In front of its building the Museum has two 90-metre long finger wharfs to moor a fleet of 15 vessels. These are: *Thistle* — a Victorian couta fishing boat (1903); *Carpentaria* — a Commonwealth lightship (1916); *John Louis* — a Broome pearling lugger (1957); *Akarana* — a racing cutter (1888) and New Zealand's Bicentennial Gift to Australia; *Sekar Aman* — an Indonesian trading perahu; *Tu Do* — a Vietnamese refugee boat; *Krait* — a World War II Commando boat; *HMAS Vampire* — a former RAN Daring class destroyer; *HMAS Advance* — a former RAN attack class patrol boat (1968); *Bareki* — a working tugboat (1962);

Epic Lass — a former RAN launch (1937); *Waratah* — an historic Sydney tugboat (1902); *Lady Hopetoun* — an early 20th century steam launch; *Gretel II* — Australia's 1970 challenger for the America's Cup; and *Boomerang* — an elegant Edwardian schooner.

National Science and Technology Centre

The National Science and Technology Centre was built as part of a joint Australia–Japan Bicentennial project and was opened on 23 November, 1988. It is located on the foreshores of Lake Burley Griffin in the Parliamentary Triangle in Canberra. It is an interactive centre for learning about science and technology — a place where the visitor becomes part of the exhibits, where participation is essential to the learning process, and where people, particularly students, are encouraged to think of science and technology as viable careers.

The National Science and Technology Centre's formal objective is to advance the cultural and economic wealth of the country by promoting in all Australians confidence, understanding and a positive attitude towards science and technology. Its goals are to provide world class programs that popularise science and technology, to address contemporary issues, and to provide a resource for the better teaching of science.

Outreach programs which travel to schools and communities throughout Australia are another part of the Centre's programs. These include the Shell Questacon Science Circus and the Starlab program. This latter program consists of portable inflatable planetariums which can fit into an average school classroom and provide hands-on workshops in astronomy, deep space and space probes. The National Science and Technology centre's portable exhibitions (Dinosaurs Alive!, IBM Mathematics, ICI Microcosm and Double 0 Double 1) travel throughout Australia and New Zealand.

Australian Science and Technology Centres have now been established in Sydney (at the Powerhouse Museum and the Sydney Children's Museum); Newcastle (Supernova at the Newcastle Regional Museum); Wollongong (at the Science Centre of the University of Wollongong); Melbourne (Scienceworks); Brisbane (Sciencentre); Perth (Scitech Discovery Centre); and Adelaide (The Investigator Science and Technology Centre).

Other collections

For information about other institutions such as the Australian War Memorial, the Australian National Botanic Garden, the Australian National Gallery and the National Museum of Australia, refer to *Year Book Australia 1991*.

LIBRARIES AND ARCHIVES

Australia has an extensive and well-utilised system of libraries, and a growing number of archives. A concentration of library functions appropriate to the national reference, curatorial and bibliographic services, and the national archival service for the Commonwealth administration, are provided by the National Library of Australia and the Australian Archives, respectively.

The National Library, the six State and two Territory library services are responsible for the acquisition and conservation of copies of all significant publications originating in the country or State. They also provide advice and support, inter-library loans and other extension services to other libraries; and research, information, and reference facilities and services to the public.

A public library system operates in each State, funded by local councils with some State assistance, and is accessible to all. More specialised libraries are associated with higher educational institutions, government departments and agencies, and commercial, learned and professional organisations. Children have access to libraries at each level of schooling, funded by State Governments and supported by the efforts of parents and school bodies.

Estimates of book reading and borrowing activities were contained in *Year Book Australia 1991*.

Archives are institutions whose primary function is the permanent preservation of unique records selected because of their administrative, financial, legal or other information value, and which are generally no longer required for the conduct of current activities by government agencies, non-government organisations or private individuals. While much archival work is an adjunct to other activity, a growing number of archival bodies, funded by governments and privately and employing specialist staff, can be identified, serving legal, administrative and research needs of individuals and organisations.

National Library of Australia

A detailed description of the National Library and its holdings, the National Bibliographic Control System, the National Bibliographic Database, the Australian Bibliographic Network, the Australian Council of Libraries and Information Services, the National Libraries Online Information and Interlibrary Lending Services, and the international and national coordination roles of the National Library can be found in *Year Book Australia 1991.*

Details of National Library holdings for the last three years are shown below.

NATIONAL LIBRARY HOLDINGS

	1989	*1990*	*1991*
Collection volumes(a) (million)	4.389	4.534	4.625
Serial titles	197,172	204,279	200,503
Paintings, drawings and prints	39,742	40,125	40,490
Photographs	508,234	511,520	513,649
Manuscripts (in shelf metres)	7,799	8,104	8,560
Music scores	140,922	150,415	153,817
Maps	387,734	400,419	408,375
Films and video cassettes	22,644	23,263	23,966
Aerial photographs	563,843	563,843	563,843
Oral history and folklore tapes (approx.)	44,100	45,565	57,625

(a) Includes microform equivalents.
Source: National Library of Australia.

Other Commonwealth libraries

Other Commonwealth libraries are located in government organisations including the Patent Office, Commonwealth Scientific and Industrial Research Organisation, The Australian War Memorial Research Centre, the Australian Heritage Commission, the Commonwealth Parliament, the Australian Bureau of Statistics and the Antarctic Division. For more detailed information relating to these library services *see Year Book Australia 1991.*

Archives and records

While general interest in archives in Australia was aroused following the celebration of the centenary of the colonisation of New South Wales in 1888, it was not until the twentieth century that measures were taken for the preservation, storage and servicing of original records. Initially, major libraries throughout Australia undertook the collection of historical records from both official and private sources. Today, archives and records organisations exist for government records at Commonwealth and State levels. Since 1961, some State and Territory archives have been established as separate authorities (New South Wales, Victoria, South Australia, Tasmania and the Northern Territory). Others still operate broadly under State library control.

In addition, archives have been established by some churches, business corporations, universities and city councils. The Australian War Memorial collects private material concerning Australians at War and is also custodian of certain official Commonwealth records relating to war or war like operations. The National Film and Sound Archive collects cultural material relevant to the film and sound media. Other corporate and private records continue to be collected by some State archives offices, libraries and universities.

Many of the bodies in the archives or records field are members of the Australian Council of Archives which provides a means of promoting cooperation on issues of common concern.

Australian Archives

In 1961 the Archives Division of the Commonwealth National Library was reconstituted as a separate agency known as the Commonwealth Archives Office, which was renamed the Australian Archives in 1974. The *Archives Act 1983* provides a statutory basis for its operations and institutes arrangements for the management and proper disposition of the vast body of records created by Commonwealth agencies, past and present.

The Records Information Service is a database of descriptive information about the structure and workings of Commonwealth Government, Commonwealth agencies since 1901 and the nature, contents and whereabouts of their records. Information held on the database, which includes Commonwealth records in the Australian War Memorial's custody, is available to the public and agency officials on-line and in printout and computer-output-microfiche formats. The microfiche report forms the first part of the Australian National Guide to Archival Material (ANGAM I). A separate database, ANGAM II, covers the public access status of items held by the Australian Archives, the Australian War Memorial and other Commonwealth agencies. It is available on-line to the public for item and subject searches.

AUSTRALIAN ARCHIVES: HOLDINGS AND ENQUIRIES

Year	*Total holdings*	*Official reference inquiries*	*Public reference inquiries*
	shelf metres	no.	no.
1988–89	452,420	2,325	2,287
1989–90	470,180	2,184	2,648
1990–91	479,725	2,248	3,469

Source: Australian Archives.

CREATIVE ARTS

Government support

The Commonwealth Government formulates policy guidelines for the support of the arts generally and allocates funds annually to the national cultural institutions under its jurisdiction.

The arts in Australia receive considerable financial support from the Commonwealth Government both in the form of direct grants and through the provision of taxation benefits. This support is complemented by State, Territory and local governments. Governments provide funds for virtually all aspects of creative artistic life. There are major performing arts facilities in the following capital cities — Canberra, Sydney, Melbourne, Brisbane, Perth, Adelaide and Darwin. The number of regional art museums and performing arts centres is increasing each year.

In the past decade the number of major international art exhibitions touring capital cities has increased. Community and folk arts have gained recognition, and the Australian film industry is once again a major contributor, in economic and artistic terms, to Australian cultural life.

The total outlays of the three levels of government for 1989–90 are included in the table below. A total of over $1,600 million in current and capital outlays was provided to organisations in the cultural industry. A further table on total government outlays over the last five years is also included. Further explanation of terms used in the public finance statistical system is contained in the chapter on Public Finance. The ABS publication *Classification Manual for Government Finance Statistics, Australia* (1217.0) contains a description of the classifications used for government finance statistics.

TOTAL OUTLAYS ON CULTURE BY COMMONWEALTH, STATE AND LOCAL GOVERNMENTS, 1989–90
($ million)

Purpose	*Commonwealth*	*State*	*Local*	*Total*
Libraries	29	83	243	354
Broadcasting and film production	685	11	—	696
Cultural facilities/services(a)	171	319	72	560
Total	**885**	**413**	**315**	**1,610**

(a) Includes outlays for the creative and performing arts, museums and art galleries.
Source: Unpublished ABS data.

TOTAL GOVERNMENT OUTLAYS ON CULTURE
($ million)

	1985–86	*1986–87*	*1987–88*	*1988–89*	*1989–90*
Libraries	285	322	335	329	354
Broadcasting and film production	626	567	59	582	696
Cultural facilities/services(a)	485	601	688	676	560
Total	**1,396**	**1,490**	**1,082**	**1,587**	**1,610**

(a) Includes outlays for the creative and performing arts, museums and art galleries.
Source: Unpublished ABS data.

Cultural Ministers Council

The Cultural Ministers Council was established in 1984 to provide a forum for the exchange of views on issues affecting cultural activities in Australia. It currently comprises Australian Commonwealth, State and Territory, and New Zealand government Ministers responsible for arts and cultural heritage. The corresponding Minister from Papua New Guinea participates with observer status.

For the purposes of the Council, cultural activities are defined as: creative arts; performing arts; cultural heritage, including collecting institutions; libraries and information services; and film.

The activity of governments in encouraging and supporting culturally important activities is complemented by non-government sponsors, organisers, entrepreneurs and patrons of the arts. Private and corporate investment in the arts is being encouraged, and joint ventures between government and corporate sponsors for large-scale events, tours or exhibitions are not uncommon.

National Culture/Leisure Statistics

In 1991, as a result of a joint initiative of the Statistical Advisory Group of the Cultural Ministers Council and the Australian Bureau of Statistics it was agreed to form a National Culture/Leisure Statistical Unit within the ABS to:

- develop a statistical framework for culture/leisure statistics;
- coordinate ABS' (and other organisations', where possible) statistical activity towards the fulfilment of the framework; and
- draw together the results of culture/leisure statistics work to present results in accordance with the framework, for public release and use in policy and evaluation of culture/leisure programs.

The unit is located in the Adelaide office of the ABS.

Australia Council

The Australia Council is the Commonwealth Government's arts funding and advisory body. Established as a statutory authority in 1975, its responsibilities are detailed in the *Australia Council Act 1975*. Broadly speaking, the Council's brief is to formulate and carry out policies to foster a strong artistic life throughout the nation by promoting excellence in and development of the arts. It also actively encourages involvement in the arts by all Australians and nurtures a culturally diverse national identity. The Australia Council comprises fourteen members.

Two important principles guide the work of Council. It operates at arms length from government which ensures that decision making on specific grants is made independently of the political process. It also operates under the principle of peer review by which decisions on policy, priorities and grant selections are made by professional peers of the applicants.

The Council is divided into five Boards and major Committees — Aboriginal Arts, Literature, Performing Arts, Visual Arts/Craft and Community Cultural Development. Their roles are to implement policy, devise support programs, monitor grants and advise the Council on broader issues of arts policies and needs. Another unit, Strategic Development, monitors trends in the arts industry, advises Council on future planning and supports initiatives to develop the arts industry nationally.

Aboriginal Arts Board

The Council's Aboriginal arts programs support activities involving the preservation and continuation of traditional cultural practices of Aboriginal and Torres Strait Islander people and their associated art forms, as well as the generation of new artistic expression among Aboriginal and Torres Strait Islander people in urban and country areas.

Literature Board

The Literature Board encourages all forms of Australian creative writing in English and other languages through direct grants to writers, and the subsidising and promotion of the resultant works. More than half of the Board's annual expenditure goes in grants to writers to meet travel, research and other expenses.

Performing Arts Board

The Performing Arts Board develops and implements policies which assist professional performing artists to develop a distinctive national culture accessible to all Australians. It facilitates consideration of issues common to all the performing arts such as training, performances, venues and administration. The Board also continues to encourage and support the development of music in Australia and the promotion of Australian music and musicians overseas, and the development of performance, content and production of dance, drama, puppetry, mime and young people's theatre, which stem from and relate to the Australian experience.

Visual Arts/Craft Board

The Visual Arts/Craft Board links related but distinct art forms. The Board provides assistance to individuals and organisations working across the spectrum of the visual arts and crafts in Australia. Programs include grants to individuals, the commissioning and placing of works of art in public places, research and writing on the arts, support for artists in residence and the exhibition of art and craft in Australia and internationally.

Community Cultural Development Committee

The Community Cultural Development Committee encourages the closer integration of arts practice into everyday life and the growth of an independent culture that reflects the diverse composition of Australian society.

The staff of the Community Cultural Development Unit advises the Committee on the implementation of its priority areas of Art and Working Life and Arts for a Multicultural Australia. The development of strategic partnerships with national organisations representing local government, migrant groups, the union movement and those responsible for the planning of our cities is a key aspect of the Community Cultural Development Committee's work.

ALLOCATION OF AUSTRALIA COUNCIL FUNDS, 1989–90 AND 1990–91
($'000)

	1989–90	*1990–91*
Support for art form development		
Literature	3,919	4,518
Performing arts	32,583	28,075
Visual arts/craft	6,650	6,636
Total	*43,152*	*39,229*
Support for general arts activities		
Aboriginal arts	3,370	3,325
Community cultural development	5,158	5,174
Strategic development	2,137	2,824
Total	*10,665*	*11,323*
Total support for the arts	53,817	50,552
Administration	7,528	8,193
Total appropriation	**61,345**	**58,745**

Source: Australia Council.

Other Commonwealth schemes in support of the arts

Art Exhibitions Australia Limited

Art Exhibitions Australia Limited (AEAL), previously International Cultural Corporation of Australia Limited (ICCA), was established by the Commonwealth Government in 1980 as a non-profit public company to arrange and manage cultural exhibitions and events.

The Australian Government provided seeding funds totalling $1 million between 1980 and 1983, but since then the Corporation has been self-supporting. Since it commenced as ICCA, AEAL has attracted a total of $15 million of sponsorship support from 72 companies in the corporate sector and 16 public sector authorities; over $24 million in total from admissions to exhibitions, more than $14 million from merchandising and over $4 million from investments and grants.

The company works closely with the Department of the Arts, Sport, the Environment and Territories (which is the manager of the Government's indemnity scheme), the Department of Foreign Affairs and Trade and other government and cultural agencies in Australia and overseas. Its continuing contractual partners in exhibition activities are the Australian galleries and museums.

To date, the AEAL has managed 38 exhibitions. Total audiences have exceeded 7 million. Exhibitions managed by AEAL have included The Entombed Warriors from China, Philip Guston from the United States, Pop Art from the Museum of Modern Art, New York, Picasso from Europe, Gold of the Pharaohs from Egypt, Ancient Macedonia from Greece, The Age of Sultan Suleyman The Magnificent from Turkey, Flowers and Nature: Brueghel to Van Gogh from the Netherlands, Golden Summers and The Great Australian Art Exhibition (the latter two from Australia).

Public Lending Right Scheme

The Public Lending Right Scheme, established by the Commonwealth Government in 1974, makes compensatory payments to Australian authors, illustrators, translators, editors and their Australian publishers for the use of their books in public lending libraries. Eligible books must be created by Australian citizens and residents and meet certain eligibility criteria. The *Public Lending Right Act 1985*, placing the Scheme on a statutory basis, began operation on 1 July 1987.

In 1990–91 the Government provided $3.32 million for payments and administration. The Scheme's 1990–91 payments to eligible claimants totalled $3.03 million. Payments to authors and publishers are based on annual sample surveys of book stocks of public lending libraries throughout Australia.

Other schemes

For details of other Commonwealth Support Schemes for the Arts, namely, Artbank, Historic Memorials Committee, Taxation Incentives and Commonwealth Indemnification of Exhibitions *see Year Book Australia 1991.*

Other arts organisations

Arts Council of Australia

The Arts Council of Australia is a national federation of community based Arts Councils. Each State division is funded through the Australia Council and their respective State Government.

The Arts Council of Australia is administered through the State office in which the Federal President resides. (For 1991–92 the federal office is with the Northern Territory Arts Council.)

The Council acts as a coordinating body for the activities of the States. These programs cover a wide range of community arts activities initiated by local Arts Councils, an extensive program of professional performances in schools and tours by major theatre companies to towns and cities outside the capitals.

There are now about 300 Arts Councils around Australia. Each local Arts Council initiates its own program of activities which are supported by the State offices.

Australian Elizabethan Theatre Trust

The Australian Elizabethan Theatre Trust was originally formed in 1954 to present drama, opera, ballet and puppetry throughout Australia. The Trust's revenue is obtained from subscriptions, donations and its own activities. At the end of March 1991 the Trust went into provisional liquidation. However, as at November 1991, the provisional liquidators were working on a scheme of arrangements to enable the Trust to continue but on a much smaller scale.

The Australian Ballet

The Australian Ballet was established in 1961 as the nation's classical ballet company. The company now performs in Australian capital cities every year and regularly tours overseas. The Australian Ballet has an international reputation as one of the top ballet companies in the world. It is based at The Australian Ballet Centre, South Melbourne, in the Arts City precinct, has an office in Sydney and representatives in London and New York.

THE AUSTRALIAN BALLET: PERFORMANCE AND EMPLOYMENT

	1987	*1988*	*1989*	*1990*	*1991*
PERFORMANCES					
Theatres in Australia					
Victoria	70	58	60	61	64
New South Wales	81	80	87	84	82
South Australia	12	—	12	7	10
Queensland	—	10	—	10	12
Western Australia	—	—	7	—	—
Australian Capital Territory	—	6	6	—	6
Other venues in Australia					
Myer Music Bowl, Melbourne	—	1	1	1	—
ABC TV–FM simulcasts	—	1	2	1	—
Performances overseas	20	37	14	22	—
Total performances	**183**	**192**	**188**	**187**	**175**
EMPLOYMENT					
Dancers	54	60	60	60	60
Staff					
Artistic	6	6	8	7	8
Music	4	5	4	5	4
Production and theatre	32	30	29	27	29
Marketing and publicity	9	10	15	11	11
Administration and finance	19	21	20	21	20
Total employment	**124**	**132**	**136**	**131**	**132**

Source: The Australian Ballet.

Festivals

Festivals devoted solely or partly to the arts now total about 300 a year. Amongst the biggest are Adelaide's biennial and Perth and Sydney's annual festivals, both of which last several weeks and present overseas artists as well as leading Australian companies.

Many country centres now have arts festivals which attract performers and artists from a wide area. Seminars, arts workshops and community participation programs are increasingly popular.

The Australian Opera

The Australian Opera is the largest performing arts organisation in Australia, employing more than 200 permanent staff including 30 principal artists and a chorus of 50. In addition it employs more than 500 casuals each year, including celebrated international singers. In 1990 it paid $13.7 million ($11.6 million in 1989) in salaries and wages. Total revenue in 1990 was $28.3 million ($23.8 million in 1989). By far the largest part of this revenue (62.9%) was box office and self-earned income. Government funding accounted for 27.6 per cent of total revenue, with the balance (9.5%) coming from private and corporate contributions. During 1990, the Australian Opera presented 18 operas by 13 composers in four capital cities (Sydney, Melbourne, Adelaide and Perth). The following table shows performance details and funding sources for the past three years.

THE AUSTRALIAN OPERA: PERFORMANCES, ATTENDANCES AND SOURCES OF INCOME

	1988	*1989*	*1990*
Performances	232	233	236
Attendances	274,782	296,477	307,656
Box office, donations and other income ($ million)	9	18	20
Government grants ($ million)	(a)7	6	8

(a) Includes $1.5 million bicentennial year special project grants.
Source: The Australian Opera.

Musica Viva

Musica Viva is Australia's national chamber music entrepreneur. A non-profit company founded in 1945 with headquarters in Sydney, Musica Viva has a Board drawn from all over Australia, a State Committee structure and branch offices in all capital cities.

Musica Viva derives income from ticket sales, mainly through subscriptions from corporate sponsorship and individual donations as well as receiving subsidies from the Performing Arts Board of the Australia Council and several State governments.

As well as its international subscription series in Brisbane, Newcastle, Sydney, Canberra, Melbourne, Hobart, Adelaide and Perth, Musica Viva also conducts an extensive country touring program. In addition, Musica Viva operates an extensive Schools' Performance program in New South Wales, Victoria, Tasmania and Western Australia. It commissions new music from Australian composers and manages tours by Australian artists overseas, often in association with the Department of Foreign Affairs and Trade.

Arts and crafts — participation and purchasing

A survey of participation in arts and crafts and the purchasing of arts and crafts products was conducted throughout Western Australia in October 1990 by the Australian Bureau of Statistics. The results of the survey are summarised below.

Participation

In the period April to October 1990, over 38 per cent of adults 15 years and over in Western Australia participated in art/craft as a leisure activity. A further 15 per cent of adults had not participated during the eligible period but were interested in participating.

The most popular type of art/craft was handicrafts (52%). Next most popular were photography (20%), music making (19%), and drawing/painting and sculpting (16%).

PERSONS PARTICIPATING: TYPE OF ART ACTIVITY, OCTOBER 1990

Type of activity	*Males*	*Females*	*Total*	*Type as a per cent of total*
	no.	no.	no.	%
Handicrafts	28,287	220,194	248,481	52.4
Drawing/painting/sculpting	30,140	44,725	74,865	15.8
Music making	45,321	42,829	88,149	18.6
Writing	16,248	25,154	41,401	8.7
Photography	52,349	41,110	93,459	19.7
Other art or craft	17,465	31,044	48,509	10.2
Total	**160,768**	**313,299**	**474,068**	**100.0**

Note: The totals may not equal the sum of their respective component items as a person may have participated in more than one art activity.

Source: Arts and Crafts: Purchasing and Participation, Western Australia (4111.5).

The level of participation increased with age, from 28 per cent for 15–19 year olds to 69 per cent for those 70 years and over. Participation in drawing/painting/sculpting tended to decrease as age increased.

Most commonly people participated in art/craft activities by themselves and the most popular place for engaging in these activities was at a private house. The most popular reason for doing art/craft was for enjoyment or relaxation (71% to 88% depending upon the type of activity undertaken). The next most popular reasons were to make or produce something and to learn/develop skills. The relative importance of the latter reasons varied somewhat with the type of art activity. For example, to make or produce something was an important reason for doing handicrafts (60%) and to learn/develop skills was an important reason for music making (38%).

Purchasing

As at October 1990, over 57 per cent of households in Western Australia had purchased a finished art/craft product within the previous six month period. The proportion of households that had made purchases of art/craft products was similar within the metropolitan areas of the State.

The table below indicates that the majority of households had purchased record/tape/compact discs (69%) or books (67%) during the period April to October 1990. The remaining categories of art/craft were purchased by only a minority of households (11% to 18%). The pattern of types of art/craft purchases was very similar for all categories of gross annual household income except that handmade pottery was purchased more frequently by households with an income of more than $50,000.

With the exception of paintings/prints the most common amount expended on art/craft purchases by a household was less than $50.

ART/CRAFT PURCHASES BY HOUSEHOLDS, OCTOBER 1990

	Households	
Types of art purchases	*Total*	*Per cent*
Record/tape/compact disc	229,390	68.7
Books (excluding text books)	223,890	67.1
Handmade pottery	61,675	18.5
Painting/print	45,613	13.7
Handmade jewellery	37,803	11.3
Other art/craft product	38,557	11.5
Total	**333,859**	**100.0**

Note: The totals do not equal the sum of their respective component items as a household may have purchased an item from more than one category.

Source: Arts and Crafts: Purchasing and Participation, Western Australia (4111.5).

Film and television

The Commonwealth Government provides direct and indirect support to the Australian film and television production industry. The following funds were allocated to film-related organisations in 1990-91:

- Australian Film Finance Corporation — $66 million;
- Australian Film Commission — $16,073,000. In addition, $3,175,000 was expected from self-generated funds, giving a level of activity of $19,248,000;
- Australian Film, Television and Radio School — $10,368,000. In addition, $1,402,000 self-generated income provided a total activity level of $11,770,000; and
- Australian Children's Television Foundation — $1,163,000.

Australian Film Commission

The Australian Film Commission is a statutory authority established in 1975. It is the primary development agency for film and television in Australia. Its stated objectives are to foster a stable and diverse Australian film and television production industry of quality, encourage the production and distribution of Australian programs and promote the commercial potential, cultural diversity and benefits of Australian programs both domestically and internationally. Over half the organisation's budget is invested in the production of innovative film and television projects.

AUSTRALIAN FILM INDUSTRY: NUMBER AND VALUE OF AUSTRALIAN TITLES

	1988–89		*1989–90*		*1990–91*	
Type of film	*Number*	*$ million*	*Number*	*$ million*	*Number*	*$ million*
Features	21	47.1	33	136.8	26	113.2
Telemovies	9	5.8	16	2.7	2	1.0
Mini-series	17	68.8	16	64.7	14	62.4
Total	**47**	**121.7**	**65**	**204.2**	**42**	**176.5**

Source: Australian Film Commission.

AUSTRALIAN FILM INDUSTRY: ADMISSIONS, CINEMA SCREENS AND BOX OFFICE RECEIPTS(a)

	1988	*1989*	*1990*
Admissions ('000)	37,366	36,631	40,912
Number of cinema screens (incl. drive-ins)	712	772	851
Gross box-office receipts(b) ($m)	223.8	241.7	270.2

(a) Statistics cover all feature films exhibited irrespective of the country of manufacture. (b) Estimated gross box-office for feature films exhibited in Australia

Source: Motion Picture Distributors Association of Australia.

Film Australia Pty Ltd

Film Australia, the nation's film and television production house, was incorporated in 1988. It is a proprietary limited company, fully government owned but autonomous in its business and creative decisions. Its board of directors is drawn from the world of arts and business. Film Australia is the largest non-broadcast production house in the country with a 7,000 square metre studio complex in Sydney. It is a company committed to meeting the changing needs of markets both internationally and at home without losing its courage to experiment with ideas and formats that may not yet be commercially viable.

Film Australia has built an enviable reputation both nationally and internationally for its documentaries, drama, children's programs and feature films taking the Australian 'message' to television screens and cinemas in over 100 countries.

The mainstay of Film Australia's work is the National Interest Program in which 20 programs are made each year that deal with matters of national interest to Australia. This renewable three-year contract with the Federal Government is presently worth $18 million.

Film Australia's catalogue of 2,000 titles has won it more than 500 awards worldwide. Every year Film Australia is invited to screen in major film festivals throughout the world. In 1991 44 of its programs screened in 60 international film festivals.

Australian Film Finance Corporation Pty Ltd

The Government established the Australian Film Finance Corporation (AFFC) as an incorporated company in 1988, with a budget allocation covering the next four years. The Corporation invests in feature films, documentaries and television dramas, including mini-series and telemovies. Special attention is given to children's television.

From the commencement of its operations until 30 June 1991, the AFFC received 331 applications for funding of which 166 were approved by its Board — 45 feature films, 22 television dramas, 70 documentaries, 12 co-productions and 17 items specifically for children's television since its inception. At 30 June 1991, the AFFC had committed a total of $199.8 million to 142 projects with a production slate of $411.92 million. In addition, the AFFC has committed $39.25 million on print and advertising loans, enhancement loans, licence fees and distribution advances.

Taxation incentives for films scheme

The scheme which is embodied in Division 10BA of the *Income Tax Assessment Act 1936* was established in October 1980 to encourage private investment in Australian films. The scheme allows taxation concessions for private investors in qualifying Australian films which have been issued with a certificate to that effect by the Commonwealth Minister for the Arts, Sport, the Environment and Territories.

Qualifying Australian films are feature films and films of a like nature for television (telemovies); documentaries; and mini-series of television drama. They must be produced principally for public exhibition in cinemas or on television, be substantially made in Australia and have a significant Australian content.

Australian Children's Television Foundation

The Australian Children's Television Foundation was incorporated in Victoria in March 1982. Its aim is to improve the quality and quantity of children's programs on Australian television. It has actively pursued this objective by investing in script development and program production and by undertaking related educational and informational activities. The Foundation receives assistance from the Commonwealth Government, and all State and Territory Governments. In 1990–91, $1.163 million was provided by the Commonwealth with $711,000 from the other participating governments on a pro rata basis.

Film and videotape censorship

The Commonwealth's censorship powers derive from section 51(1) of the Constitution which enables the Commonwealth to regulate trade and commerce under the Customs Act. Section 50(1) of the latter Act provides that the Governor-General may, by regulation, prohibit the importation of goods into Australia. The Customs (Cinematograph Films) Regulations, which establish the Film Censorship Board and define its legislative role and functions, flow from that section.

The Board is a full-time statutory body located in Sydney as part of the Office of Film and Literature Classification. A regional Censorship Office is located in Melbourne.

Under the Customs (Cinematograph Films) Regulations, the Board examines imported films and videotapes to determine whether or not to register them for public exhibition. It also examines film advertising. The Regulations direct the Board not to pass films or advertising matter which in its opinion are:

- blasphemous, indecent or obscene;
- likely to be injurious to morality, or to encourage or incite crime; and/or
- undesirable in the public interest.

The Board's State functions in relation to cinema films, including classification, are performed by virtue of formal agreements with the various States. Decisions on matters arising under the Regulations and on classification under State or Territory legislation may be appealed to the Film and Literature Board of Review. The Censorship Board also classifies sale–hire videotapes pursuant to State or Territory legislation. These decisions may likewise be appealed to the Film and Literature Board of Review.

In 1990, 864 cinema feature films were examined. Of the 864 features, 88 were classified For General Exhibition ('G'), 160 Parental Guidance ('PG'), 331 For Mature Audiences ('M') and 45 For Restricted Exhibition ('R'). Another 237 films were registered subject to special conditions. Three feature films were refused registration. There were 13 appeals, of which 11 were dismissed. Permission to import for use at approved events including film festivals, was granted to 381 films.

The principal countries of origin were the United States of America (259 films), Australia (117 films), Hong Kong (102 films), France (34 films), Japan (21 films), the United Kingdom (19 films) and USSR (14 films).

While the 'G', 'PG' and 'M' classifications are advisory, persons who have attained the age of two years and who have not attained the age of 18 years are excluded by law from seeing 'R' rated films.

The Board also examines video features for sale or hire. In the videotape area there is an 'X' classification which applies to videotapes containing non-violent explicit sexual material. However the 'X' classification only applies in the Australian Capital Territory and Northern Territory. 'X' rated films are not permitted to be sold or rented elsewhere in Australia. Details of the videotapes classified by the Board over the last three years are set out in the table below.

VIDEOTAPES CLASSIFIED BY THE FILM CENSORSHIP BOARD, 1988 TO 1990

Board activity	*1988*	*1989*	*1990*
Videotapes			
Processed	2,262	3,071	3,868
Refused registration	37	35	76
Classification appeals	5	3	—
Appeals dismissed	3	1	—
Classifications given			
General exhibition 'G'	713	924	1,424
Parental guidance 'PG'	362	496	584
Mature audiences 'M'	656	749	766
Restricted exhibition 'R'	247	270	184
Non-violent explicit sexual 'X'(a)	247	597	832
Special conditions	—	—	2

(a) 'X' classification is only accepted in the Australian Capital Territory and the Northern Territory.

Source: Film Censorship Board.

Professional training in the arts

Professional training in the arts in Australia covers a broad range of resources. Training is available through formal courses in TAFEs, universities and private institutions. There are also a number of on-the-job training programs available in the arts and many organisations offer in-house training programs for their staff. The last decade has seen the development of multi-disciplinary tertiary arts training institutions in some States.

Arts Training Australia

This national organisation was established in 1986 to address vocational training needs in the arts, media and entertainment industries. It is not a training organisation in itself, but aims to ensure that current training programs are meeting present and future needs of those involved in the arts, media and entertainment industries.

Arts Training Australia represents a wide range of national employer organisations, unions and professional associations active in the industries. It undertakes research projects which examine the specific training needs of the differing industry sectors, ranging from architecture and design, performing and visual arts to writing and publishing, film, television, radio and heritage. It also assesses the relevance of non-accredited privately-run courses to the needs of the industry and coordinates national curriculum development programs.

Through its branch network the organisation liaises with the Commonwealth Government and State Governments, educational institutions and others in policy making for arts training. It provides advice to Government on the industries' training requirements, as well as participating in wide-ranging debates on industry training matters.

Australian Film, Television and Radio School

The Australian Film, Television and Radio School is the national training centre for the film and broadcasting industries. The School was established in 1973 as an Australian Government statutory authority as part of the Federal Government's strategy to expand training in the arts.

The School offers full-time training in film and video directing, producing, screenwriting, cinematography, editing, sound and production design, and in commercial radio production. It provides advanced education and training for industry professionals across the country in all States through short and part-time courses. Postgraduate media courses and a selection of overseas training in the Asian–Pacific region are also carried out. The School maintains an extensive library of print and non-print material related to film, television and radio. It also has an extensive publishing program and supplies educational video resource material.

National Institute of Dramatic Art

The Institute is Australia's national training school for young people who wish to enter the profession of theatre, film and television as actors, directors, designers or stage managers. The Institute's courses are designed to meet the needs of the arts entertainment industry by assisting students to develop the craft skills, cultural background and personal discipline required for successful careers in their chosen field.

The Institute's students number approximately 135 and it has a staff of 30 full and part-time teachers.

Attendance at cultural venues

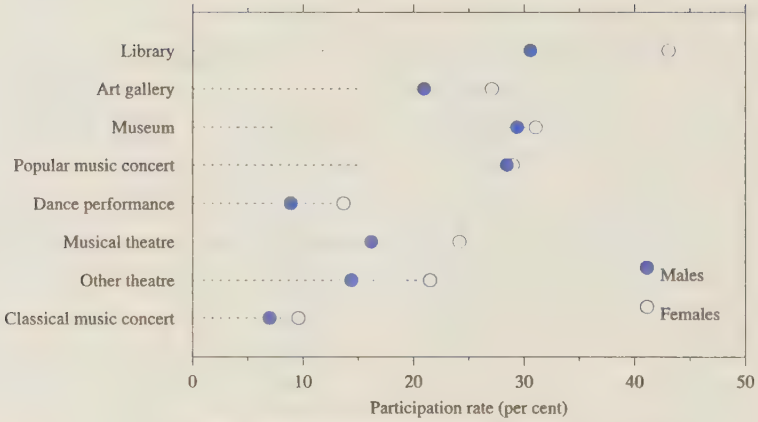
A survey conducted by the ABS in June 1991 revealed the following estimates of attendances by people aged 18 years and over at selected cultural venues and activities in Australia in 1990–91.

PERSONS ATTENDING SELECTED CULTURAL VENUES/ACTIVITIES, 1990–91
('000)

Venue	*Persons*
Library	4,442.5
Art gallery	2,886.8
Museum	3,632.9
Popular music concert	3,456.4
Dance performance	1,349.4
Musical theatre	2,427.4
Other theatre performance	2,151.3
Classical musical concert	985.9

Source: Attendance at Selected Cultural Venues, Australia (4114.0).

PARTICIPATION RATES BY SEX, 1990-91



Source: Attendance at Selected Cultural Venues, Australia, June 1991 (4114.0).

SOCIO-CULTURAL ACTIVITIES

Aside from organised or institutional forms of culture, there is a dimension of social practice which is cultural: most simply described as those activities or forms of activity which people undertake in their own time, unconstrained by immediate material need, social obligation or gain. Typically, these are self-motivated activities which contribute to personal or social identity, and which give meaning and focus to values that people hold.

Language and religious practice, multicultural manifestation, attitudes to and use of Aboriginal lands, and participation in adult education are all examples of cultural activity embedded in community life that have begun to attract interest from policy makers. They can be seen, simply, as mechanisms for cultural maintenance, or as adaptions by individuals and by groups to social change. They both anchor institutional forms of culture (which rely heavily on commercial or government support) within society, and provide a bridge to mutual understanding across culturally diverse groups.

Aboriginal and Islander community, land and cultural activity

Detailed descriptions of activities on the following topics will be found either in *Year Book Australia 1990 or 1991*:

- Aboriginal and Islander Community (including the impact of European settlement, a statistical profile of the location of the community throughout Australia as at June, 1986, a brief statement on government policies toward the community, and consultative arrangements);
- Aboriginal Land (including information on the Aboriginal Land Rights (Northern Territory)) Act;
- national parks on aboriginal land in the Northern Territory;
- Aboriginal land in the States and the Australian Capital Territory and homeland centres and outstations; and
- Aboriginal Cultural Activity (including art, broadcasting and communications).

Multiculturalism

Australia's non-discriminatory immigration policy has resulted in a diverse society in which people of different ethnic and racial origins live together sharing a commitment to the language, laws, institutions and interests of Australia.

The Government's policies on multiculturalism are founded on three principles:

- cultural identity — the right of all Australians, within carefully defined limits such as the rule of law and parliamentary democracy, to express and share their individual cultural heritage, including their language and religion;
- social justice — the right of all Australians to equality of treatment and opportunity, and the removal of barriers of race, ethnicity, culture, religion, language, gender or place of birth; and
- economic efficiency — the need to maintain, develop and utilise effectively the skills and talents of all Australians, regardless of background.

The Government's policies on multiculturalism are set out in the National Agenda for a Multicultural Australia, launched by the Prime Minister on 26 July 1989. The Agenda defines multiculturalism as follows:

> 'In a descriptive sense multiculturalism is simply a term which describes the cultural and ethnic diversity of contemporary Australia. We are, and will remain, a multicultural society.
>
> 'As a public policy multiculturalism encompasses government measures designed to respond to that diversity. It plays no part in migrant selection. It is a policy for managing the consequences of cultural diversity in the interests of the individual and society as a whole.'

For a description of the Office of Multicultural Affairs *see Year Book Australia 1991.*

Languages

Details of the languages spoken in Australia, obtained from the 1986 Population Census, are contained in *Year Book Australia 1990*, pages 365–366.

National policy on languages

English is the national language. But Australia's cultural vitality is also a product of other languages spoken in the community. These include the indigenous languages of the Aboriginal and Torres Strait Islander citizens, as well as European and Asian languages.

The goals of the national policy on languages encompass proficiency in spoken and written English for all Australians, the learning of languages other than English, and the maintenance, and, where appropriate, recording of Aboriginal and Torres Strait Islander languages as well as addressing the needs of children and adults, of those in work, of those unemployed or not in the labour force, and of Australians from different ethnic backgrounds.

The Federal Government proposes to spend more than $280 million in 1991–92 alone to implement the policies and strategies designed to achieve the goals of the policy.

English as a Second Language in schools (ESL)

The ESL program aims to improve the educational participation and outcomes for English as a Second Language (ESL) students by:

- developing their English language competence; and
- facilitating their participation in mainstream education activities.

The school ESL Program comprises two elements: New Arrivals and General Support. In 1991, the New Arrivals element provided $2,446 per student ($2,398 in 1990) for up to 12 months of intensive English tuition for eligible students newly arrived in Australia. In 1991 the General Support element provided $48.3 million to assist schools to provide additional English tuition to, and adapt existing teaching practices for, ESL students (including those born in Australia) who have reached a sufficient level of English competence to participate in mainstream classes.

The provisions of the New Arrivals element were extended in 1990 to cover students enrolling in the first formal year of primary school who had arrived in Australia up to eighteen months previously (as compared with the six months which applied in earlier years).

This change was introduced to take account of the limited exposure to English of many preschool-age children arriving in Australia.

In 1990, 14,640 new arrivals were catered for in intensive classes in government schools and special language centres and 2,415 in non-government schools. This represents a decrease of 0.1 per cent over 1989. In 1989 the staff provided included 810 specialist and advisory teachers and 217 support staff in government schools, and 169 specialist/advisory teachers and 9 support staff in non-government schools.

Under the General Support element, in 1989 over 105,000 government school students and 74,000 students in non-government schools were assisted. Staff provided included 1,418 specialist and advisory teachers and 220 support staff in government schools, and 436 specialist and advisory teachers and 10 support staff in non-government schools.

In total, 3,289 full-time equivalent staff were employed under both elements of the program in 1989.

Ethnic Schools Program (ESP)

The objectives of the Program are:

- To maintain the relevant languages and cultures among students of non-English speaking background.
- To increase the awareness and understanding for all children of the different community languages and cultures within Australian society.

The Ethnic Schools Program assists over 500 community organisations to operate classes in languages and cultural studies relevant to their community. For these purposes, the term 'ethnic' embraces all cultures which are not English speaking and eligibility for funding extends to Aboriginal and Torres Strait Islander groups. Classes may be held either during or after formal school hours.

More than 500 organisations teaching 49 languages were covered under the program in 1990.

Adult education

There are many adult education courses which fulfil the cultural, recreational and social needs of the community — *see* the chapter on Education. *See* also the Workplace Literacy Program in the chapter on Labour.

Religious affiliation

In every national census taken in Australia, a voluntary question on religious affiliation has been asked. Until the 1933 Census the voluntary nature of the question was not referred to on the census form however instructions for writing 'object to state' were given. Since 1933, the voluntary nature of the religion question has been specifically stated. In 1971, the instruction 'if no religion, write none' was introduced.

The following table provides a summary of the major religious affiliations at each census since 1911. At the 1986 Census, 73 per cent of the population stated a Christian religion compared with 95.9 per cent in 1911.

In 1947, 39.0 per cent of the population stated an Anglican religion. This proportion has since steadily declined to reach its lowest recorded figure at the 1986 Census (23.9%).

MAJOR RELIGIOUS AFFILIATIONS, CENSUS YEARS

Census year	Anglican	Catholic	Other Christian	Total Christian	Non-Christian	No religion	Religion not stated	Other(a)	Total
								Per cent	'000
1911	38.4	22.4	35.1	95.9	0.8	0.4	(b)2.7	0.2	4,455.0
1921	43.7	21.7	31.6	96.9	0.7	0.5	(b)1.7	0.2	5,435.7
1933	38.7	19.6	28.1	86.4	0.4	0.2	12.8	0.1	6 629.8
1947	39.0	20.9	28.1	88.0	0.5	0.3	10.9	0.2	7,579.4
1954	37.9	22.9	28.5	89.4	0.6	0.3	9.5	0.2	8,986.5
1961	34.9	24.9	28.4	88.3	0.7	0.4	10.5	0.2	10,508.2
1966	33.5	26.2	28.5	88.2	0.7	0.8	10.0	0.3	11,599.5
1971	31.0	27.0	28.2	86.2	0.8	6.7	6.0	0.2	12,755.6
1976	27.7	25.7	25.2	78.6	1.0	8.3	11.0	0.4	13,548.4
1981	26.1	26.0	24.3	76.4	1.4	10.8	10.9	0.5	14,576.3
1986	23.9	26.0	23.0	73.0	2.0	12.7	11.9	0.4	15,602.2

(a) Comprises non-theistic affiliation and religion inadequately described. (b) Includes 'object to state'.

Source: Census 86 — Religion in Australia (2510.0).

The following table shows the breakdown of religious groupings by the number and percentage of affiliates within each at the 1976 and 1986 Censuses. The number of Catholics increased by 581,600 in the 10 year period overtaking the number of Anglicans (who decreased by 28,800) to become the most dominant religious group in Australia for the first time.

RELIGIOUS AFFILIATION: 1976 AND 1986

Religion	1976		1986	
	'000	Per cent	'000	Per cent
Christian				
Catholic(a)	3,482.8	25.7	4,064.4	26.1
Anglican	3,752.2	27.7	3,723.4	23.9
Uniting(b)	—	—	1,182.3	7.6
Methodist-including Wesleyan(c)	983.2	7.3	n.a.	n.a.
Presbyterian and Reformed	900.0	6.6	560.0	3.6
Orthodox	372.2	2.7	427.4	2.7
Lutheran	191.5	1.4	208.3	1.3
Baptist	174.2	1.3	196.8	1.3
Pentecostal	38.4	0.3	107.0	0.7
Churches of Christ	86.9	0.6	88.5	0.6
Salvation Army	63.3	0.5	77.8	0.5
Jehovah's Witness	41.4	0.3	66.5	0.4
Seventh Day Adventist	41.5	0.3	48.0	0.3
Latter Day Saints/Mormons	n.a.	n.a.	35.5	0.2
Brethren	20.7	0.2	23.2	0.1
Congregational	53.4	0.4	16.6	0.1
Oriental Christian(d)	n.a.	n.a.	10.4	0.1
Other Protestant n.e.i.	206.2	1.5	199.4	1.3
Christian n.e.i.	236.9	1.7	346.4	2.2
Total	*10,644.9*	*78.6*	*11,381.9*	*73.0*
Non-Christian				
Muslim	45.2	0.3	109.5	0.7
Buddhist	n.a.	n.a.	80.4	0.5
Jewish	53.4	0.4	69.1	0.4
Hindu	n.a.	n.a.	21.5	0.1
Other non-Christian n.e.i.	30.4	0.2	35.7	0.2
Total	*129.1*	*1.0*	*316.2*	*2.0*

For footnotes *see* end of table.

RELIGIOUS AFFILIATION: 1976 AND 1986 — *continued*

Religion	1976 *'000*	 *Per cent*	1986 *'000*	 *Per cent*
Other				
Non-theistic	n.a.	n.a.	4.9	—
Inadequately described	51.3	0.4	58.0	0.4
No religion (so described)	1,130.3	8.3	1,977.5	12.7
Not stated	1,593.0	11.8	1,863.6	11.9
Total	**13,548.4**	**100.0**	**15,602.2**	**100.0**

(a) Roman Catholic and Catholic (non-Roman). (b) The Uniting Church was formed in 1977 from the Methodist, Congregational and part of the Presbyterian churches. (c) People who responded Methodist in 1986 were coded to Uniting. (d) Includes Armenian, Assyrian, Coptic and Syrian denominations.

Source: Census 86 — Religion in Australia (2510.0).

RECREATION, FITNESS AND SPORT

Government support

The Commonwealth Department of the Arts, Sport, the Environment and Territories (DASET) has a general responsibility in the national sphere for recreation, fitness and advice on sport policy.

All State Governments have also established agencies with special responsibilities for recreation and sport. Many local government authorities employ recreation workers who are responsible for planning the use of recreation facilities, and for devising recreation programs. Local government also complement the Commonwealth Government and State Governments in the provision of recreation facilities to the community.

The total outlays of the three levels of government for 1989–90 are included in the table below. A total of over $1,900 million in capital and current outlays was provided to the recreation industry. A further table follows on total government outlays over the last five years. Further explanation of terms used in the public finance statistical system is contained in the chapter on Public Finance. The ABS publication *Classification Manual of Government Finance Statistics, Australia* (1217.0) contains a description of the classifications used for government finance statistics.

TOTAL OUTLAYS(a) ON RECREATION BY GOVERNMENTS, 1989–90
($ million)

Purpose	*Commonwealth*	*State*	*Local*	*Total*
Public halls and civic centres	—	3	115	118
Swimming pools and beaches	—	-1	92	91
National parks and wildlife	6	265	—	271
Recreation facilities/services n.e.c.(b)	67	733	628	1,428
Total	**73**	**1,000**	**835**	**1,908**

(a) Outlays are expenditure net of offsetting receipts. (b) Includes estimates of outlays that can not be assigned to one of the preceding classes.

Source: Unpublished ABS data.

TOTAL GOVERNMENT OUTLAYS(a) ON RECREATION, BY PURPOSE
($ million)

	1985–86	1986–87	1987–88	1988–89	1989–90
Public halls and civic centres	72	93	77	107	118
Swimming pools and beaches	72	72	78	80	91
National parks and wildlife	189	199	207	250	271
Recreation facilities/services n.e.c.(b)	1,052	1,305	1,490	1,073	1,428
Total	1,385	1,669	1,852	1,510	1,908

(a) Outlays are expenditure net of offsetting receipts. (b) Includes estimates of outlays that can not be assigned to one of the preceding classes.
Source: Unpublished ABS data.

The activity of governments in encouraging and supporting recreation and sporting activities is complemented by non-government sponsors, organisers and entrepreneurs.

Sport and Recreation Ministers Council

The Sport and Recreation Ministers Council (SRMC) provides the major mechanism for liaison between the Commonwealth Government, State and Territory Governments on matters concerned with sport and recreation in Australia. The Council is a forum for consultation and cooperation between the respective Governments, and its membership comprises the ministers with prime responsibility for sport and recreation. Both New Zealand and Papua New Guinea have observer status on the Council.

The SRMC is assisted by the Standing Committee on Recreation and Sport (SCORS), which comprises representatives from the Commonwealth, State and Territory departments or agencies responsible for sport and recreation. A number of Sub-Committees and working groups have been established by SRMC and SCORS to consider particular sport and recreation issues. This includes the sub-committee on Fitness, the Consultancy Fund Sub-Committee, the Sub-Committee on Women in Sport and Recreation and the Tobacco Working Group.

Community Cultural, Recreation and Sporting Facilities Program

The Community Cultural, Recreation and Sporting Facilities Program was introduced in the 1991–92 Commonwealth Budget. The Program aims to provide financial assistance to State/Territory and local government authorities and other community groups to supplement that available from other sources for the development of high priority community recreation and sporting facilities. Over the next three years $30 million is to be allocated through this program, of which $8 million is to be available in 1991–92. It is an application-based Program which has generated widespread community interest.

Recreation and Fitness Assistance Program

The Recreation and Fitness Assistance Program (RFAP) provides for the development of programs, resources and the collection and dissemination of information that will assist the provision of safe and satisfying recreation and fitness opportunities. In 1990–91, $2.627 million was allocated to the Government's recreation, fitness and water safety programs to enhance the opportunities for all Australians to participate in healthy, safe and satisfying leisure activities. Of this amount, $1.575 million was provided for a range of projects which aim to increase participation in safe recreation and fitness activities. Major projects funded through this Program in 1990–91 are described below.

The Recreation Industry

In 1988 DASET commissioned the Recreation Industry Study to develop an industry definition and statistical framework, and to commence the collection of data on employers and employees in the Australian recreation, sport and fitness industries.

The preliminary results of the survey have demonstrated that the Australian recreation industry is made up of more than 20,000 establishments. 'Sport' is the industry sector with the largest number of establishments (42%), followed by 'Community and Government', 'Outdoor Recreation', 'Fitness', 'Gambling Services', 'Attractions' and 'Heritage and Museums'.

Based on the survey, the total number of people employed full time and part time in the industry is approximately 280,000. Nearly one-third (31%) of people with jobs in the recreation industry are employed in the 'Community and Government Activities' sector. 'Sport' is the next biggest employer (66,500 employees or 24% of total employment), followed by 'Gambling Services' (57,800 or 21%).

Sports Participation

A Sports Participation Survey was conducted by the Australian Bureau of Statistics throughout Victoria in October, 1989. The survey covered not only participation in sporting activities and attendance at sporting events but also asked for reasons for non-participation. The survey collected a range of information from persons in Victoria aged 15 years and over and covered the twelve month period ending October, 1989.

During this twelve month period a total of 1.378 million persons (41.7%) participated in sport. The ratio of male/female participation was considerably higher for males (824,100 or 50.7%) than for females (554,200 or 33.0%).

The ten main sports participated in were golf (11.0%), tennis (10.2%), squash (5.7%), netball (4.8%), basketball (4.2%), ten pin bowling (4.2%), Australian Rules football (4.0%), billiards/snooker/pool (3.8%), indoor cricket (3.3%) and cricket (3.3%).

MAIN SPORTS PARTICIPATED IN VICTORIA
OCTOBER 1989

Sport	*Number*
Golf	364,400
Tennis	338,400
Squash	189,600
Netball	159,000
Basketball	139,800
Ten pin bowling	139,400
Australian Rules football	130,900
Billiards/snooker/pool	125,400
Indoor cricket	110,600
Cricket	107,500

Source: Participation in Sports, Victoria (4118.2)

Australian Rules football dominated sport attendance where an admission fee was charged (974,000 persons). Cricket (251,000), basketball (246,100) and tennis (147,700) were the next highest. For sports where no admission was charged, netball displaced tennis from the top four. Attendance figures were 274,400 for Australian rules football, 183,400 for cricket, 177,200 for netball and 149,700 for basketball.

Assistance for water safety organisations

In 1990–91 DASET provided financial assistance totalling $1.525 million to the Surf Life Saving Association of Australia, The Royal Life Saving Society–Australia, and Austswim. In addition, funds totalling $30,000 were also provided to the Australian Underwater Federation and the Australian Recreation and Sport Fishing Confederation. These grants aid and encourage the development of safe water-based activity programs for many Australians.

Other recreation projects

A video and teaching material have been produced to overcome the shortage of appropriate resource material for use in the training of recreation workers in Aboriginal communities. This material will be distributed to tertiary education institutions, agencies employing recreation workers for short in-service courses, and volunteer agencies which administer community-based programs.

During 1990–91 five recreation projects for people with disabilities were funded at a cost of $200,800. The aims of the projects were to promote recreation opportunities for people with disabilities.

Australian Sports Commission

The Australian Sports Commission, established under the *Australian Sports Commission Act, 1989*, is the sole authority for planning and coordinating Federal Government sports funding. Incorporating the Australian Institute of Sport (AIS), the Commission conducts elite sports programs and also provides leadership and long-term direction for community sports. In support of these efforts, the Commonwealth Government provided $54.2 million in 1990–91 for the Australian Sports Commission's programs and administration. The Commission allocated funds in this year across the following programs: elite athletes, sports development, sports participation, sports science, sports medicine and research facilities, the National Sport Information Centre, the Australian Sports Drug Agency and corporate services.

Elite sports programs

The scholarship sports program involves 18 sports — basketball, canoeing, cricket, cycling, diving, golf, gymnastics, hockey, netball, rowing, rugby union, soccer, squash, swimming, tennis, track and field, volleyball and water-polo. While many programs are at the AIS headquarters in Canberra, units have been established in Perth (hockey), Brisbane (squash, diving), Adelaide (cycling, cricket), Gold Coast (canoeing), Sydney (volleyball) and Melbourne (golf).

In June 1991 there were 520 scholarship holders under the scholarship sports program. Athletes at the AIS are encouraged to undertake employment or to pursue secondary or tertiary education. In addition to the scholarship sports program, the AIS also administers the National Sports Program which offers athletes the use of AIS facilities, resources and expertise. These are utilised for national selection trials, team training, talent development programs, coaches' seminars, and workshops for sports officials. Over 5,000 athletes and officials from more than 50 sporting organisations took part in the program in 1990–91.

The Sports Talent Encouragement Plan (STEP) provides direct financial assistance to world-ranked Australian individuals and teams, and to athletes demonstrating a capacity to achieve open world rankings. Assistance is also provided to junior athletes who achieve world ranking in Olympic and AIS sports. The assistance contributes towards training and competition expenses of athletes. At June 1991, 227 individuals and 34 teams were receiving funds through the elite, potential and junior categories of the STEP program.

A program to assist elite athletes to gain employment and to pursue educational opportunities has been established by the Commission. This, the 'Lifestyles for Elite Athletes' Program, had by September 1991 already involved dozens of Australian companies and established a register of over 400 athletes willing to fill positions.

Assistance to national sporting organisations

The Australian Sports Commission provides financial assistance to national sporting organisations through its Sports Development Program. Funding goes towards the employment of national executive directors, coaching directors and development officers, administrative support, international meetings, coaching, officiating and development seminars and projects, costs associated with bidding for and hosting international events in Australia, costs associated with attending major competitions overseas, and high performance athlete development programs (talent identification programs, National Leagues, and elite programs).

Applied Sports Research Program

The Commission provides funds under the Applied Sports Research Program to enable national organisations to employ tertiary institutions to conduct research related to their sport.

Sport for all

The Commission has established the AUSSIE SPORT programs, including Sport for Kids, Sportstart, Sportsfun, and the Challenge, Achievement and Pathways in Sport Program — a sports leadership development program for young people. The Women and Sport Unit, established in 1987, encourages women's participation and achievement in sport, through television and print campaigns, award schemes, seminars, conferences and workshops. Aussie Able is the Sports Commission's program to encourage people with disabilities to participate in sport and to ensure that they have opportunities to play.

Sports Information Centre

The Sports Commission's National Information Centre is Australia's premier information resource centre for sport and its related disciplines. Its services include manual and computerised reference services, current awareness publications, print and video loans, translations, information packages, and access to research dissertations on sport. These services are available to athletes, coaches, officials, students, libraries and outside enquirers.

Coaching support

Salary support is provided through the Australian Sports Commission for national coaches, their assistants and satellite program coaches, as well as for directors of coaching, to ensure that top coaches are not lost to sport through the lack of a well-developed career structure. In addition, coaching scholarships are awarded each year and overseas coaches are brought to Australia annually to share their expertise and methodology with local coaches. High performance coach awards have been developed to further upgrade coaching at the elite level and 17 high performance coaches are currently working towards this award, with more to be included next year.

Australian Coaching Council

The Australian Coaching Council is responsible for the development of sports coaches in all sports throughout Australia. The Council's activities include the education and accreditation of coaches through the National Coaching Accreditation Scheme. As at September 1991, over 85,500 coaches had received accreditation nationally under the scheme.

Drugs in sport

The Australian Sports Drug Agency was established in 1989 with funding provided through the Australian Sports Commission and is now a separate statutory authority. The Agency is responsible for educating the sporting and general community on the dangers of performance-enhancing drugs and conducting independent sampling and testing of sports participants at all levels.

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FOR MORE INFORMATION

The ABS has a far wider range of information on Australia than that contained in the *Year Book*. Information is available in the form of regular publications, electronic data services, special tables and from investigations of published and unpublished data.

For further information contact ABS Information Services at one of the addresses listed on the page facing the Introduction to the *Year Book*.

Chapter Thirteen

Tourism

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Tourism encompasses all short-term travel away from the normal place of work and residence, including that undertaken for business and pleasure. It includes both domestic and international travel and involves the consumption of a wide range of goods and services provided by, e.g., transport and tour operators, accommodation establishments, theme parks and attractions, entertainment and arts venues, museums and historical sites, restaurants, travel agents and souvenir retailers.

It also draws on services provided by the Commonwealth Government, the State and Territory Governments and local governments without direct charge to tourists, such as the construction and maintenance of roads, airports, harbours, railways and national parks, tourism promotion, immigration and customs services, information services and the provision of a large number of recreational facilities.

Economic importance

Just as tourism is a dominant force in the global economy, it is one of Australia's largest and most dynamic sectors of commerce too. In recent years, tourism has experienced unprecedented growth and made a substantial contribution to national economic development. It has matured into a prominent, sophisticated activity with the potential to play a significant role in securing Australia's future prosperity.

It is estimated that tourism directly and indirectly contributed 5.1 per cent to Gross Domestic Product in 1989–90 and accounted for some 441,000 jobs (nearly 6% of the workforce). During the 1980s tourism created over 100,000 new jobs.

In 1989–90 total expenditure derived from tourism was around $23.7 billion, of which $17.3 billion was attributed to domestic tourism. Foreign exchange earnings from international tourism to Australia were estimated to be about $6.4 billion. In 1990–91, foreign exchange earnings are estimated to have increased by 14.1 per cent to $7.3 billion which amounts to 10 per cent of Australia's total current account credits. This increase resulted from growth in both the volume of visitors and expenditure per head. In assessing the net effect of international travel on the Australian economy, it is necessary to take account of outgoings associated with overseas travel by Australians which have recently exceeded revenue generated by inbound tourism.

While growth in tourism flows to Australia over the last five years has been almost twice the international rate, Australia's share of world tourism is still small, accounting for only 0.51 per cent of total international visitor arrivals in all countries. Because Australia is a long haul destination for most international travellers this share is never likely to be large; however, there is still considerable potential for growth in the future.

The domestic travel market was relatively stagnant from 1984–85 to 1988–89 but 1989–90 saw a nine per cent increase in the number of domestic trips undertaken compared with the previous year. The number of international visitors to Australia increased at a rate of 25 per cent per annum from 1984 to 1988. However, 1989 saw a slight decrease in arrivals to 2.1 million partly because of the 'rain shadow' effect of Expo 88 and the Bicentennial and the adverse impact of the disruption to domestic airline services in late 1989. Arrivals recovered to 2.2 million in 1990 and, despite the adverse short-term effects of the Gulf War, are expected to continue to grow strongly.

International travel

Statistics about travellers to and from Australia are classified in the first instance by the actual or intended length of stay in Australia or abroad as reported on passenger cards collected from incoming and outgoing passengers under the *Migration Act 1958*; this classification distinguishes between long-term and short-term movement.

Statistics of permanent and long-term movement are shown in the chapter, Demography. Statistics of short-term arrivals and departures which are in the nature of travel statistics are given below.

Short-term movement is defined as comprising visitor arrivals and Australian resident departures where the intended stay in Australia or abroad is for a period of less than twelve months, together with departures of visitors and returns of Australian residents who have stayed in Australia or abroad for less than twelve months.

Short-term movement excludes persons who arrive in and depart from Australia on the same ship's voyage or on the same flight (variously called 'direct transit' or 'through' passengers), or who change flights without leaving the airport's transit area; passengers on pleasure cruises commencing and finishing in Australia; and all crew. However, it includes persons who pass through the customs barrier and declare the purpose of their visit to Australia to be 'in transit'. Short-term visitors are more numerous than long-term visitors and have come to be regarded as 'tourists' by many users of the statistics.

SUMMARY OF SHORT–TERM TRAVELLER STATISTICS

	Overseas visitors		*Australian residents*	
	Arriving in Australia	*Departing from Australia*	*Departing from Australia*	*Returning to Australia*
Annual average				
1971–75	475,900	479,000	647,600	631,400
1976–80	684,700	655,400	1,077,300	1,062,100
1981–85	998,600	966,600	1,337,600	1,306,000
Year				
1985	1,142,600	1,096,500	1,512,000	1,494,700
1986	1,429,400	1,363,800	1,539,600	1,513,200
1987	1,784,900	1,701,200	1,622,300	1,586,300
1988	2,249,300	2,174,100	1,697,600	1,637,900
1989	2,080,300	2,020,400	1,989,800	1,912,700
1990	2,214,900	2,162,700	2,169,900	2,109,300

Source: Overseas Arrivals and Departures, Australia (3404.0).

In addition to the basic classification of travellers shown above, certain other characteristics are collected. These are: sex, age, marital status, country of citizenship, country of birth, intended or actual length of stay, purpose of journey, mode of transport, country of residence or where most time was or will be spent, country of embarkation or disembarkation, State of residence or State where most time was or will be spent, and State or country of embarkation or disembarkation.

The categories shown in the previous table are cross-classified by various characteristics listed above and resulting statistics are shown in considerable detail in ABS monthly, quarterly and annual publications. Certain unpublished information is available on request. Selected traveller statistics are shown in the following tables.

SHORT–TERM MOVEMENT: ARRIVALS AND DEPARTURES OF OVERSEAS VISITORS AND AUSTRALIAN RESIDENTS BY MONTH OF ARRIVAL OR DEPARTURE, 1990

	Overseas visitors		*Australian residents*	
Month	*Arriving*	*Departing*	*Departing*	*Returning*
January	176,200	226,100	146,700	252,600
February	192,800	178,400	124,400	155,600
March	189,100	197,000	168,600	137,500
April	181,100	188,000	193,400	158,600
May	149,900	175,500	167,900	144,800
June	157,300	149,000	209,800	149,700
July	185,400	156,300	198,400	211,600
August	178,200	188,000	184,300	182,000
September	162,700	170,000	214,300	205,800
October	190,600	162,000	156,200	230,800
November	198,600	193,300	154,900	157,200
December	253,100	179,200	251,200	123,000
Total	**2,214,900**	**2,162,700**	**2,169,900**	**2,109,300**
Sea travellers as a percentage of total	0.13	0.36	0.21	0.30

Source: Overseas Arrivals and Departures, Australia (3404.0).

Short-term travel is subject to marked seasonal variation, December being the peak month for the arrival of overseas visitors and the departure of Australian residents.

SHORT–TERM MOVEMENT: DEPARTURES OF AUSTRALIAN RESIDENTS STATED PURPOSE OF JOURNEY AND INTENDED LENGTH OF STAY, 1990

	Main purpose of journey						
Intended length of stay	*Visiting relatives*	*Holiday, accompanying business traveller(a)*	*Convention*	*Business*	*Employment*	*Other and not stated*	*Total*
Under 1 week	20,000	63,700	8,400	80,200	5,100	12,200	189,600
1 week and under 2 weeks	41,900	354,000	23,500	81,700	3,100	19,500	523,600
2 weeks and under 3 weeks	51,600	260,000	11,400	49,700	4,500	14,000	391,100
3 weeks and under 1 month	53,000	122,200	5,100	23,200	2,300	7,900	213,600
1 month and under 2 months	123,600	205,700	5,300	36,100	4,400	14,100	389,200
2 months and under 3 months	63,100	92,500	1,200	14,000	3,400	7,100	181,500
3 months and under 6 months	54,600	76,100	300	12,200	4,600	9,700	157,500
6 months and under 9 months	20,300	26,600	—	5,700	5,500	7,700	65,800
9 months and under 12 months	11,100	24,700	—	4,100	8,600	9,300	57,800
Total	**439,200**	**1,225,500**	**55,300**	**306,900**	**41,500**	**101,500**	**2,169,900**

(a) Includes student vacation.

Source: Overseas Arrivals and Departures, Australia (3404.0).

In 1990, the majority of Australian residents departing for short-term visits abroad intended to stay for under one month, with 51 per cent intending to stay for under three weeks as indicated in the next table. The majority of short-term visitors to Australia intended to stay under three weeks, with 51 per cent intending to stay under two weeks.

Statistics for Australian residents refer to their total time away from Australia; for overseas visitors they refer only to the Australian portions of their trips.

In the case of both Australian residents departing and overseas visitors arriving, the most common reason for their visit was 'holiday', followed by 'visiting relatives' and 'business' as the second and third most common reasons.

SHORT-TERM MOVEMENT: ARRIVALS OF OVERSEAS VISITORS STATED PURPOSE OF JOURNEY AND INTENDED LENGTH OF STAY, 1990

	Main purpose of journey							
Intended length of stay	*In transit*	*Visiting relatives*	*Holiday, accompanying business traveller*	*Convention*	*Business*	*Employment*	*Other and not stated*	*Total*
Under 1 week	70,200	31,800	331,500	7,800	96,000	3,400	22,500	563,100
1 week and under 2 weeks	—	57,300	403,900	14,700	71,600	3,200	20,500	571,100
2 weeks and under 3 weeks	—	74,300	176,800	6,700	28,100	1,200	12,200	299,400
3 weeks and under 1 month	—	56,800	87,100	1,400	8,400	400	5,300	159,600
1 month and under 2 months	—	116,700	123,200	1,400	12,800	1,900	12,000	268,000
2 months and under 3 months	—	43,900	39,500	200	4,300	1,400	9,000	98,300
3 months and under 6 months	—	40,900	41,200	200	5,000	4,400	12,800	104,500
6 months and under 9 months	—	28,300	31,900	100	2,500	4,700	20,700	88,200
9 months and under 12 months	—	6,000	20,300	—	2,400	8,900	24,900	62,600
Total	**70,200**	**456,000**	**1,255,500**	**32,500**	**231,100**	**29,600**	**139,900**	**2,214,900**

Source: Overseas Arrivals and Departures, Australia (3404.0).

SHORT-TERM MOVEMENT: ARRIVALS OF OVERSEAS VISITORS AND DEPARTURES OF AUSTRALIAN RESIDENTS BY COUNTRY OF RESIDENCE/INTENDED STAY AND INTENDED LENGTH OF STAY, 1990

	Arrivals of overseas visitors intended length of stay					Departures of Australian residents intended length of stay			
Country of residence (visitors) and country of intended stay (residents)	*Under 1 week*	*1 week and under 1 month*	*1 month and under 3 months*	*3 months and under 12 months*	*Total(a)*	*Under 1 month*	*1 month and under 3 months*	*3 months and under 12 months*	*Total(a)*
Africa									
South Africa	1,000	3,000	3,500	1,500	9,100	3,000	5,400	1,900	10,400
Other	2,000	3,000	3,000	1,400	9,300	4,400	8,200	3,300	15,900
Total	*3,000*	*6,000*	*6,500*	*2,900*	*18,400*	*7,400*	*13,600*	*5,200*	*26,300*
America									
Canada	5,700	23,800	15,100	9,100	53,700	11,100	14,800	6,600	32,500
United States	51,800	146,800	35,200	16,700	250,500	176,400	83,000	25,000	284,400
Other	2,500	4,800	2,800	2,700	12,800	16,400	9,700	5,100	31,200
Total	*60,000*	*175,400*	*53,100*	*28,500*	*317,000*	*203,900*	*107,400*	*36,700*	*348,100*
Asia									
Hong Kong	10,400	29,400	8,300	6,400	54,500	84,600	22,100	13,800	120,500
India	1,900	3,900	2,300	2,800	11,000	7,500	10,500	4,000	22,100
Indonesia	7,900	16,000	5,800	4,600	34,400	138,200	15,400	4,500	158,000
Japan	219,400	236,900	10,000	13,600	479,900	36,900	6,300	4,700	47,900
Malaysia	9,200	21,200	8,300	7,900	46,600	49,700	17,900	7,500	75,100
Philippines	2,900	4,600	2,600	3,500	13,600	27,300	10,100	3,000	40,500
Singapore	19,900	43,500	8,000	4,500	75,900	90,100	10,400	5,000	105,500
Thailand	6,500	8,100	2,400	2,700	19,600	82,900	12,700	3,500	99,100
Other	21,000	30,700	13,000	27,800	92,600	34,300	33,700	22,600	90,600
Total(b)	*299,100*	*394,300*	*60,600*	*74,000*	*828,000*	*551,500*	*139,100*	*68,700*	*759,300*

For footnotes *see* end of table

SHORT-TERM MOVEMENT: ARRIVALS OF OVERSEAS VISITORS AND DEPARTURES OF AUSTRALIAN RESIDENTS BY COUNTRY OF RESIDENCE/INTENDED STAY AND INTENDED LENGTH OF STAY, 1990 — *continued*

	Arrivals of overseas visitors intended length of stay					*Departures of Australian residents intended length of stay*			
Country of residence (visitors) and country of intended stay (residents)	*Under 1 week*	*1 week and under 1 month*	*1 month and under 3 months*	*3 months and under 12 months*	*Total(a)*	*Under 1 month*	*1 month and under 3 months*	*3 months and under 12 months*	*Total(a)*
Europe									
France	4,500	7,900	6,100	2,600	21,100	7,100	12,100	5,000	24,100
Germany(c)	10,900	24,200	29,800	9,300	74,200	10,400	16,800	7,300	34,500
Greece	1,200	1,200	2,600	2,500	7,500	3,600	13,400	16,000	32,900
Ireland(d)	800	2,600	3,800	3,400	10,500	1,900	7,000	2,900	11,900
Italy	3,500	9,000	7,900	4,000	24,400	7,800	22,300	14,900	45,000
Netherlands	2,200	6,300	8,900	3,700	21,100	3,000	9,000	3,900	15,900
Switzerland	2,900	8,200	11,400	7,000	29,500	3,200	4,400	1,900	9,500
United Kingdom	23,000	96,500	97,100	61,100	277,700	48,600	134,000	70,200	252,800
Yugoslavia	300	600	1,800	2,800	5,800	1,900	7,300	8,300	17,500
Other	9,800	26,000	21,700	19,500	76,600	11,700	30,800	18,600	61,200
Total	*59,100*	*182,600*	*190,900*	*115,800*	*548,300*	*99,200*	*257,200*	*148,900*	*505,300*
Oceania									
Fiji	4,300	4,700	4,200	2,800	16,000	93,700	5,900	2,500	102,000
New Caledonia	4,800	7,700	1,500	400	14,400	14,300	500	100	14,900
New Zealand	114,300	239,800	39,700	24,600	418,400	274,300	34,700	11,200	320,200
Papua New Guinea	12,800	13,300	5,800	2,700	34,600	20,300	8,000	5,700	34,000
Other	5,400	5,600	3,400	2,800	17,200	52,500	4,200	2,000	58,800
Total	*141,700*	*271,000*	*54,600*	*33,400*	*500,700*	*455,200*	*53,200*	*21,500*	*529,900*
Other	*400*	*900*	*600*	*600*	*2,500*	*700*	*200*	*100*	*1,000*
Total	**563,100**	**1,030,200**	**366,400**	**255,200**	**2,214,900**	**1,318,000**	**570,700**	**281,200**	**2,169,900**

(a) The difference between the sum of the components and the total comprises 'not definite, not stated, etc.' (b) Asia includes countries which are frequently regarded as 'Middle East' countries, e.g., Iraq, Lebanon, Syria, etc. This inclusion is based on United Nations' classification of world regions. (c) Comprises the German Democratic Republic and the Federal Republic of Germany. (d) Includes the Republic of Ireland and travellers who gave the reponse 'Ireland'.

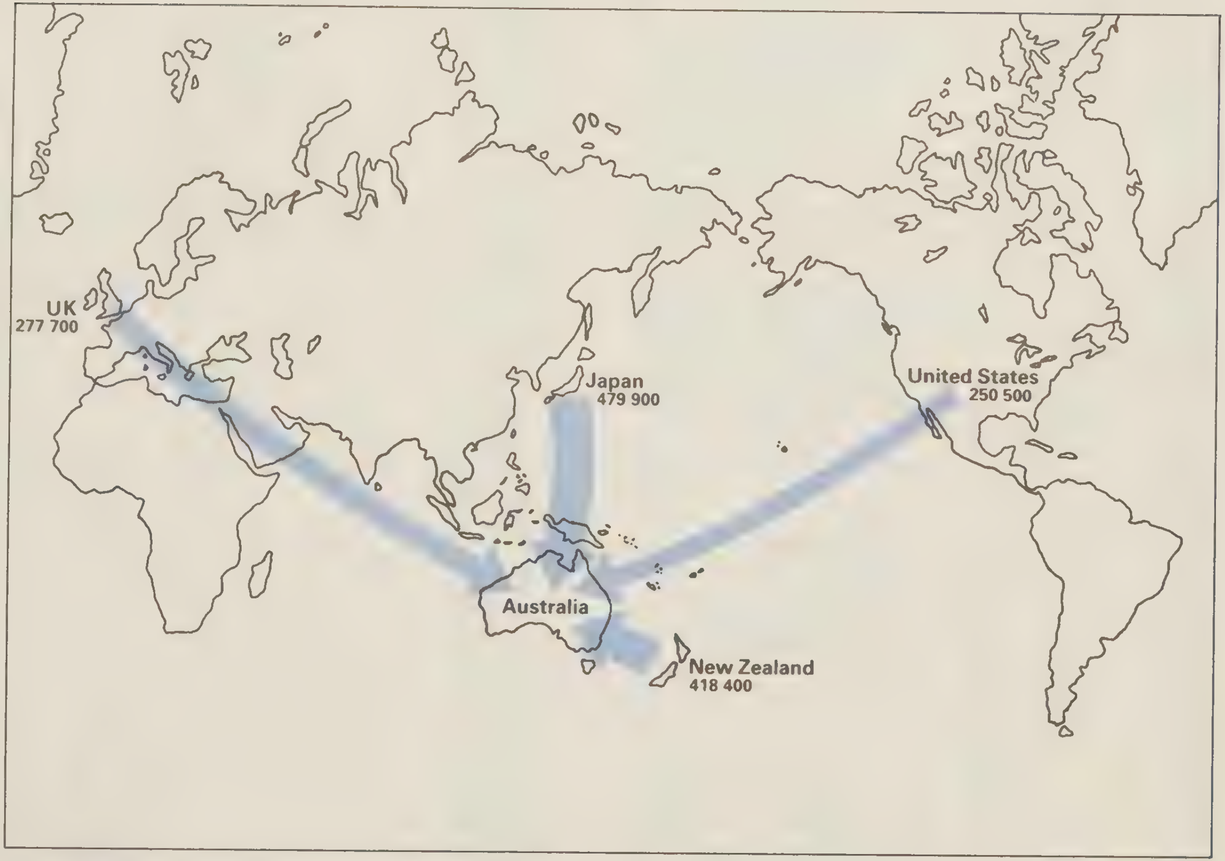
Source: Overseas Arrivals and Departures, Australia (3404.0).

INTERNATIONAL VISITORS: NIGHTS SPENT IN EACH STATE, 1989
(per cent)

	Country of residence							
State/Territory	*US*	*Japan*	*Other Asia*	*Canada*	*New Zealand*	*UK and Ireland*	*Other Europe*	*Total*
New South Wales	27	30	41	29	39	34	30	35
Victoria	27	11	19	19	10	15	18	16
Queensland	25	38	15	29	30	21	26	24
South Australia	7	2	6	5	4	8	7	6
Western Australia	8	14	13	10	13	15	9	12
Tasmania	1	—	1	1	1	2	1	1
Northern Territory	3	4	3	6	1	4	6	4
Australian Capital Territory	3	1	2	1	1	2	3	2
Australia	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

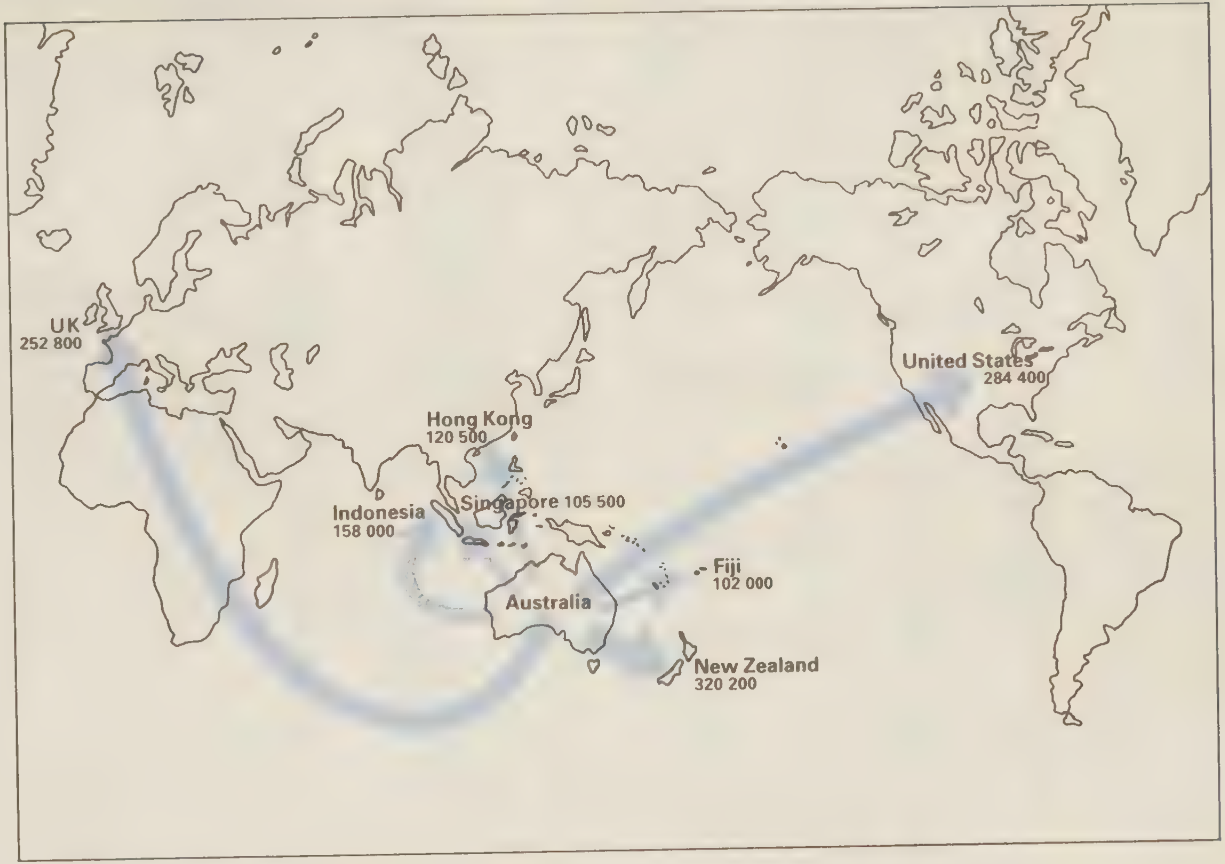
Source: Bureau of Tourism Research, International Visitor Survey, 1989.

OVERSEAS VISITORS TO AUSTRALIA (a), 1990


UK
277 700
Japan
479 900
United States
250 500
Australia
New Zealand
418 400

(a) Length of stay in Australia – under 1 week to less than 12 months.
Source: Overseas Arrivals and Departures, Australia (3404.0)

AUSTRALIAN TRAVELLERS OVERSEAS (a), 1990


UK
252 800
Hong Kong
120 500
Indonesia
158 000
Singapore 105 500
Australia
Fiji
102 000
New Zealand
320 200
United States
284 400

(a) Length of stay overseas – under 1 week to less than 12 months.
Source: Overseas Arrivals and Departures, Australia (3404.0)

International visitor shopping

Estimates of the amount spent on shopping by overseas tourists in Australia during the period October–December 1989 are shown in the following table.

NUMBER OF VISITORS BY AMOUNT SPENT ON TAKE HOME SHOPPING WHILE IN AUSTRALIA, OCTOBER–DECEMBER 1989

Amount spent	*New Zealand*	*Japan*	*Other Asia*	*USA*	*Canada*	*UK and Ireland*	*Continental Europe*	*Other*	*Total*
					— number of visitors —				
Less than $50	6,127	1,671	3,257	6,028	1,157	7,327	8,394	1,947	35,908
$50 — $99	3,676	3,342	6,921	7,234	3,472	7,327	11,017	3,894	46,883
$100 — $199	22,058	6,684	16,285	10,248	3,858	13,025	16,787	1,947	90,892
$200 — $299	15,931	10,862	11,399	12,056	1,543	18,724	11,017	5,841	87,373
$300 — $399	14,705	3,342	8,957	6,028	386	4,885	5,771	974	45,047
$400 — $499	12,254	5,849	4,885	7,234	386	7,327	4,721	1,947	44,603
$500 — $599	9,803	9,191	9,364	4,220	772	12,211	6,820	4,868	57,248
$600 — $799	8,578	5,849	4,478	4,220	386	4,885	2,098	—	30,494
$800 — $999	2,451	7,520	1,628	603	386	2,442	1,049	1,947	18,026
$1,000 or more	17,156	30,080	15,063	3,617	2,315	8,955	4,197	3,894	85,277
Total	**112,739**	**84,391**	**82,238**	**61,487**	**14,660**	**87,108**	**71,870**	**27,258**	**541,751**
					— dollars —				
Average expenditure per visitor	502.92	877.22	537.21	348.04	574.66	409.53	323.46	570.46	515.37

Source: Bureau of Tourism Research, International Visitor Survey (Supplement), 1989.

Domestic travel

In 1990 the main purposes of domestic trips were pleasure or holiday (42%), visiting friends or relatives (27%), and business (15%). The main mode of transport used was private vehicle (77%). The mean length of a trip by domestic tourists was 4.5 nights in 1990.

SUMMARY OF PERSON TRIPS AND NIGHTS AWAY(a), 1990

State/Territory of origin	*Estimated population as at 30 June 1990*	*Person trips*	*Average trips per person*	*Total nights away*	*Nights away per person trip*
	'000	'000		'000	
New South Wales	4,559.1	15,547	3.4	65,942	4.3
Victoria	3,445.0	10,810	3.2	52,527	4.8
Queensland	2,253.9	10,963	4.9	46,659	4.2
South Australia	1,142.4	3,764	3.3	15,919	4.2
Western Australia	1,259.2	4,929	3.9	23,845	4.8
Tasmania	351.5	1,506	4.3	6,131	4.0
Northern Territory	113.0	442	3.9	2,171	4.9
Australian Capital Territory	219.7	942	4.3	5,060	5.3
Total(b)	**13,343.8**	**48,957**	**3.7**	**218,253**	**4.4**

(a) For persons aged 15 years and over. (b) Total includes 'not stated'.

Source: Bureau of Tourism Research, Domestic Tourism Monitor, Summary 1990.

NUMBER OF NIGHTS SPENT IN STATE OF MAIN DESTINATION BY MAIN PURPOSE OF TRIP, 1990
('000 nights)

	Main purpose of trip				
State/Territory of main destination	*All business*	*Pleasure/ holiday*	*Visiting friends/ relatives*	*Other*	*Total*
New South Wales	7,081	31,341	18,594	9,366	66,382
Victoria	5,054	20,559	11,178	5,481	42,272
Queensland	6,458	28,843	12,019	7,542	54,862
South Australia	1,791	7,673	4,448	2,600	16,512
Western Australia	4,356	10,720	4,545	3,615	23,236
Tasmania	783	3,625	1,395	622	6,425
Northern Territory	979	2,428	587	500	4,494
Australian Capital Territory	735	1,265	1,456	615	4,071
Total	**27,238**	**106,456**	**54,220**	**30,339**	**218,253**

Source: Bureau of Tourism Research, Domestic Tourism Monitor, Summary 1990.

In 1989–90 the most frequently used accommodation by domestic travellers was the home of friends or relatives (44% of visitor nights), followed by hotels or motels with facilities (16%) and caravan parks or camping grounds (15%). The following table classifies the types of accommodation used for all visitor nights by the main purpose of the trip.

NUMBER OF VISITOR NIGHTS BY ACCOMMODATION USED BY MAIN PURPOSE OF TRIP, 1989–90
('000 visitor nights)

	Main purpose of trip				
All accommodation used	*All business*	*Pleasure/ holiday*	*Visiting friends/ relatives*	*Other*	*Total*
Hotel/motel with facilities	11,011	18,909	2,647	4,194	36,761
Hotel/motel without facilities	1,298	1,985	227	383	3,893
Friends'/relatives' house	5,156	36,216	46,181	11,823	99,376
Caravan/tent/cabin/camping	2,820	25,871	1,230	4,014	33,935
Rented house/flat	1,538	10,370	816	1,450	14,174
Own holiday home/flat	424	6,272	651	1,041	8,388
Guest house/private hotel	788	1,752	257	479	3,276
Farm	811	1,041	801	618	3,271
Boat/cabin cruiser	227	1,293	44	306	1,870
Hostel	537	403	20	1,533	2,493
Other/not stated	4,724	3,959	671	7,059	16,413
Total	**29,333**	**108,070**	**53,546**	**32,900**	**223,849**

Source: Bureau of Tourism Research, Domestic Tourism Monitor, Summary, 1989–90.

Tourist accommodation

The preceding section contains statistics on accommodation of all types used by domestic travellers. This section relates to commercial tourist accommodation used by domestic and international travellers.

New South Wales is the State with the most commercial tourist accommodation available. At December 1990, 33 per cent (51,276 guest rooms) of Australia's tourist accommodation was in New South Wales, with 40 per cent (20,680 guest rooms) of the State's capacity concentrated in the Sydney Statistical Division. Queensland had 25 per cent (39,160 guest rooms), and Victoria had 18 per cent (28,180 guest rooms) of Australia's accommodation.

In the three months to December 1990, nearly 30 per cent of room nights sold in Australia were taken in four and five star graded accommodation. This figure demonstrates the continuation of an increasing market share for higher rated accommodation, evident since 1986 (then 23%).

During 1990 the supply of tourist accommodation in Australia continued to grow faster than demand. Guest rooms available grew by 7.7 per cent for the year ending December 31, while room nights sold grew by only 2.8 per cent in the same period. The comparative rates for 1989 were 4.7 per cent for rooms available, and -1.8 per cent for room nights sold. As a consequence of this, room occupancy rates have been generally declining.

TOURIST ACCOMMODATION(a)

		December quarter 1989	*March quarter 1990*	*June quarter 1990*	*September quarter 1990*	*December quarter 1990*
		LICENSED HOTELS WITH FACILITIES(b)				
Establishments	number	1,160	1,166	1,183	1,193	1,212
Guest rooms	number	52,135	53,379	54,845	56,110	58,749
Bed spaces	number	135,657	138,204	143,606	146,274	153,818
Room occupancy rates	per cent	50.3	51.7	48.5	50.6	50.7
Bed occupancy rates	per cent	30.7	32.5	29.6	31.7	31.3
Gross takings from accommodation	$'000	243,881	262,427	250,363	272,523	291,937
		MOTELS, etc.(b)				
Establishments	number	3,469	3,475	3,573	3,612	3,666
Guest rooms	number	93,779	93,921	95,841	97,003	98,407
Bed spaces	number	286,032	285,834	290,311	293,186	297,551
Room occupancy rates	per cent	54.4	54.8	51.1	54.0	50.0
Bed occupancy rates	per cent	32.6	33.9	30.5	33.1	30.4
Gross takings from accommodation	$'000	288,560	294,884	280,118	312,647	293,213
		TOTAL HOTELS AND MOTELS etc.(b)				
Establishments	number	4,629	4,641	4,756	4,805	4,878
Guest rooms	number	145,914	147,300	150,686	153,113	157,156
Bed spaces	number	421,689	424,038	433,917	439,460	451,369
Room occupancy rates	per cent	52.9	53.7	50.1	52.8	50.3
Bed occupancy rates	per cent	32.0	33.4	30.2	32.6	30.7
Gross takings from accommodation	$'000	532,440	557,311	530,481	585,171	585,150
		CARAVAN PARKS(c)				
Establishments	number	2,634	2,627	2,680	2,682	2,687
Powered sites	number	200,639	199,901	202,489	202,477	203,126
Unpowered sites	number	70,485	69,697	71,672	70,415	70,836
Cabins, flats etc.	number	9,534	9,853	10,643	11,174	11,593
Total capacity	*number*	*280,658*	*279,451*	*284,804*	*284,066*	*285,555*
Site occupancy rates	per cent	35.5	39.0	34.4	34.5	34.7
Gross takings from accommodation	$'000	85,100	95,030	82,570	88,224	93,195

For footnotes *see* end of table.

TOURIST ACCOMMODATION(a) — *continued*

		December quarter 1989	*March quarter 1990*	*June quarter 1990*	*September quarter 1990*	*December quarter 1990*
HOLIDAY FLATS, UNITS AND HOUSES(b)						
Flats, units etc.						
One bedroom	number	7,267	7,143	7,370	7,423	7,588
Multiple bedroom	number	24,851	25,111	24,767	24,759	25,814
Total flats units etc.	*number*	*32,118*	*32,254*	*32,137*	*32,182*	*33,402*
Bed spaces	number	135,575	137,886	136,667	136,659	144,149
Unit occupancy rates	per cent	50.1	55.2	42.5	50.9	48.1
Gross takings from accommodation	$'000	76,777	89,252	63,175	78,588	81,793

(a) For the purpose of this survey, a tourist accommodation establishment is defined as an establishment which predominantly provides short-term accommodation (i.e., for periods of less than two months) available to the general public. (b) For definitions see *Tourist Accommodation, Australia* (8635.0). (c) Includes long term caravan parks. For definitions see *Tourist Accommodation, Australia* (8635.0).

Source: Tourist Accommodation, Australia (8635.0).

Tourist attractions

A 1986–87 survey of selected tourist attractions in each State and Territory (e.g., museums and art galleries, amusements and theme parks, zoos, wineries, mines and factories, natural attractions, historic attractions) revealed the following information.

TOURIST ATTRACTIONS: SUMMARY OF OPERATIONS, 1986–87

	Number of attractions						
State/Territory	*Admission charged*	*Admission not charged*	*Number of visitors(a)*	*Persons employed*	*Income from admission charged*	*Expenses*	*Net capital expenditure*
	no.	no.	'000	no.	$'000	$'000	$'000
New South Wales	233	224	20,372	5,541	47,401	192,805	37,510
Victoria	214	131	15,893	3,265	29,854	106,287	22,429
Queensland	220	91	15,930	3,194	80,779	128,960	29,935
South Australia	135	220	9,618	1,342	6,974	44,595	3,352
Western Australia	144	118	(b)4,371	1,259	13,265	42,441	11,061
Tasmania	78	33	2,191	507	6,279	14,441	1,738
Northern Territory	16	15	1,471	330	5,143	14,070	6,914
Australian Capital Territory	12	15	3,961	724	1,694	26,054	4,920

(a) Excludes visitors to national parks. Persons visiting more than one attraction counted for each. (b) Excludes visitors to natural attractions.

Source: Tourist Attractions (8661.0).

Australian Tourist Commission

The Commission (ATC) is a statutory authority under the *Australian Tourist Commission Act 1987*. Its role is to increase the number of visitors to Australia, to maximise for Australia the benefits from overseas visitors and to ensure that Australia is protected from adverse environmental and social impacts of international tourism.

The Commission engages in a wide variety of marketing activities including consumer and trade advertising, in both print and television media, direct mail, market research, industry seminars and familiarisation visits for travel agents, journalists and photographers. These activities are carried out in cooperation with State and Territory tourism authorities as well as the Australian and overseas travel industries. Advertising designed to promote Australia as a friendly, exciting and safe tourist destination provides a marketing umbrella for the States, Territories and industry, and is placed in various tourist source markets at times selected to achieve maximum awareness of Australia as a tourist destination.

Current marketing initiatives include the introduction of a special 'theme years' campaign beginning in 1993 with 'Discover the Year of Sport' and ending in 1997 with 'Discover the Year of Good Living' (food and wine).

Overseas offices of the ATC are located in London, Frankfurt, Los Angeles, New York, Chicago, Toronto, Singapore, Tokyo, Osaka, Hong Kong and Auckland.

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FOR MORE INFORMATION

The ABS has a far wider range of information on Australia than that contained in the *Year Book*. Information is available in the form of regular publications, electronic data services, special tables and from investigations of published and unpublished data.

For further information contact ABS Information Services at one of the addresses listed on the page facing the Introduction to the *Year Book*.

Chapter Fourteen

Environment

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Australia has been geographically isolated from other continents since its final severance from Antarctica 35 million years ago and a unique animal and plant life has evolved. Australia's biodiversity, that is the number and diversity of all life forms, is significant in the world context. It is not a fixed entity, but a constantly changing pool that is augmented by new genetic variation and diminished by extinctions.

Seven families of mammals, including the platypus and the koala, four of birds and twelve of flowering plants are endemic to Australia — far more endemic families than any other country. It is estimated that 88 per cent of Australia's reptiles, 70 per cent of birds and 94 per cent of frogs occur nowhere else in the world.

Australia has the planet's second highest number of reptile species (686), is fifth in flowering plants (23,000) and tenth in amphibians (197).

Over the past 200 years since white settlement, activities such as agriculture, urbanisation, clearing, draining of wetlands, the introduction of exotic species and pollution have had profound changes on Australian ecosystems. It is estimated that about half of Australia's forests have been cleared, and almost all other parts of Australia have been grazed to some extent by domestic stock or introduced feral animals. This has resulted in structural changes in vegetation communities and the loss of native species. It is estimated that 2.9 per cent of Australia's vascular plants which include trees, shrubs, grasses and ferns and 7 per cent of marsupials have been lost.

With a coastline of some 37,000 kilometres, Australia has a diverse marine environment ranging from the tropical mangrove and coral reef habitats of the far north, and Coral, Arafura and Timor Seas, to the subantarctic and antarctic habitats of the southern external territories. The fauna of the coastal water surrounding the Australian continent has a high diversity of species.

Although Australia covers a land area of 768 million hectares, nearly 75 per cent of the population lives within 50 kilometres of Australia's coastal cities. About 35 per cent of the total population lives in Sydney and Melbourne.

AUSTRALIA'S BIODIVERSITY

Flora	*Number of species*
Vascular Plants	22,000 species, more than 90% occur naturally in Australia At least 209 species endangered, a further 784 vulnerable
Non-Vascular Plants	About 20,000 species of algae About 3,500 species of mosses, liverworts and lichens About 10,000–20,000 species of large fungi About 250,000 species of microfungi
Fauna	*Number of species*
Birds	850 species of which 70% occur naturally only in Australia 10 species are extinct, 26 species endangered
Reptiles	700 species, 88% occur only in Australia
Insects	65,000 known insects with at least as many to be identified
Mammals	276 native land mammals. 20 species extinct. 43 species endangered or vulnerable
Amphibians	About 180 species, all of which are frogs. 94% of frog species occur nowhere else
Fish/Molluscs	3,600 species of fish

Source: Australian National report to UNCED, Draft, 30 July 1991.

ENVIRONMENTAL INDICATORS

Environmental indicators are increasingly seen as a necessary tool for helping to set the course towards a sustainable future. The OECD has been undertaking work on indicators as part of its program on environmental economics that would integrate environment and economic decision-making. Indicators need to be viewed in a dynamic context, so the set of indicators can change to reflect the changing nature of policy and the seriousness of different environmental problems.

The following data are indicators reflecting economic and population changes of environmental significance. The indicators have been prepared by OECD and show a comparison of Australia with some selected countries. Developments are proceeding in Australia on further environmental statistics and indicators for Australia, States or specified regions.

OECD ENVIRONMENTAL INDICATORS, 1991

Indicator		*Canada*	*U.S.A.*	*Australia*	*Netherlands*	*Sweden*	*U.K.*	*Total OECD*	*Total world*
Carbon dioxide (CO_2) emissions from energy use (million tonnes of carbon)									
	1971	94	1,209	48	44	27	187	2,427	4,380
	1975	109	1,240	56	46	26	170	2,522	4,811
	1980	124	1,369	63	50	24	167	2,756	5,528
	1985	115	1,339	66	48	22	159	2,648	5,802
	1988	124	1,433	71	51	21	163	2,793	6,256
Per unit of GDP (kg/$US '000)	1988	316	324	404	380	194	317	286	635
Per capita(tonnes)	1988	4.8	5.8	4.3	3.4	2.5	2.9	3.4	1.2
Greenhouse gas emissions (million tonnes of carbon)	Late 1980s								
CO_2		126	1,443	72	51	21	166	2,840	6,400
Methane		79	692	90	26	5	75	1,290	5,100
CFC		34	332	20	17	6	67	901	1,300
Total		239	2,468	182	94	32	307	5,030	12,800
Per unit of GDP (kg/$US '000)		608	558	1,035	705	295	599	516	662
Per capita (tonnes)		9.2	10.0	11.0	6.4	3.8	5.4	6.1	2.5
Protected areas ('000 sq. km)	1970	148.2	234.5	108.6	0.9	5.0	13.0	586.3	1,597.1
	1980	214.6	473.9	250.7	1.1	10.6	13.2	1,107.7	3,566.2
	1985	229.5	649.5	354.1	1.6	15.9	15.5	1,437.4	4,237.7
	1989	718.6	790.4	364.8	1.5	17.1	25.7	2,180.5	5,290.8
Per cent of land area	1989	7.8	8.6	4.8	4.4	4.2	10.6	7.1	4.0
Use of nitrogen fertilisers applied to arable land (tonnes/sq. km)	1970	0.7	3.9	0.4	46.1	7.4	12.4	3.9	2.2
	1975	1.3	5.0	0.4	53.3	8.6	15.0	4.8	3.1
	1980	2.1	5.7	0.6	56.2	8.2	17.7	5.6	4.2
	1985	2.8	5.0	0.7	55.6	8.2	22.2	5.6	4.8
	1988	2.6	5.1	0.8	46.7	7.6	20.9	5.7	5.4
Threatened species (per cent of species known)	Late 1980s								
Mammals		7.3	10.5	13.4	48.3	15.4	31.2	n.a.	n.a.
Birds		3.8	7.2	3.3	33.1	6.8	15.0	n.a.	n.a.
Fish		1.2	2.4	. .	22.4	4.6	3.4	n.a.	n.a.
Reptiles		2.4	7.1	1.6	85.7	0.0	45.5	n.a.	n.a.
Amphibian		2.4	3.6	4.0	66.7	38.5	33.3	n.a.	n.a.
Vascular plants		0.8	0.5	12.3	. .	8.2	9.6	n.a.	n.a

... continued

OECD ENVIRONMENTAL INDICATORS, 1991 – *continued*

Indicator		*Canada*	*U.S.A.*	*Australia*	*Nether-lands*	*Sweden*	*U.K.*	*Total OECD*	*Total world*
Waste generation									
Municipal waste									
Total ('000 tonnes)		16,400	208,800	10,000	6,900	2,650	17,700	420,000	n.a.
Per capita (kg)		632	864	681	467	317	353	513	n.a.
Industrial waste									
Total ('000 tonnes)		61,000	760,000	20,000	6,690	4,000	50,000	1,430,000	n.a.
Per unit GDP (tonnes/$US mill.)		155	186	146	50	37	97	146	n.a.
Hazardous ('000 tonnes)		3,300	275,000	300	1,500	500	4,500	303,000	n.a.
Growth of economic activity									
GDP @ 1985 prices and exchange rates (Index 1970 = 100)	1975	129	112	121	117	114	110	115	n.a.
	1980	156	131	139	133	121	121	136	n.a.
	1985	180	151	162	140	133	133	155	n.a.
	1989	208	173	187	154	146	155	177	n.a.
GDP ($US billion)	1989	401	4,544	184	138	111	530	10,070	n.a.
Per capita ($US '000)	1989	15.5	18.4	11.1	9.4	13.1	9.3	12.2	n.a.
Private final consumption expenditure @ 1985 prices and exchange rates (Index 1970 = 100)	1975	136	116	124	119	113	113	120	n.a.
	1980	162	135	142	141	117	125	140	n.a.
	1985	184	160	166	141	120	139	159	n.a.
	1989	217	180	187	157	136	173	182	n.a.
Total ($US billion)	1989	235	2,944	107	83	59	346	6,254	n.a.
Per capita ($US '000)	1989	9.0	12.0	6.5	5.6	7.0	6.1	7.6	n.a.
Energy intensity									
Total primary energy requirements/unit GDP (tonnes of oil equivalent (TOE) per $US '000)	1970	0.80	0.60	0.54	0.55	0.58	0.61	0.54	n.a.
	1975	0.76	0.57	0.53	0.57	0.55	0.53	0.52	n.a.
	1980	0.74	0.53	0.53	0.55	0.52	0.49	0.48	n.a.
	1985	0.66	0.45	0.48	0.49	0.55	0.44	0.43	n.a.
	1988	0.64	0.44	0.47	0.48	0.52	0.41	0.41	n.a.
Energy requirements (TOE) per capita	1988	9.6	7.8	5.0	4.4	6.7	3.7	4.8	n.a.
Total TOE (mill. tonnes)	1988	249.5	1,928.4	82.7	64.5	56.2	208.5	4,002.9	n.a.
Transport trends									
Road traffic 10^9 veh. km	1970	126	1,787	79	48	35	179	3,288	n.a.
	1989	225	3,307	153	89	61	357	6,343	n.a.
Change (%)		79	85	94	85	73	99	93	n.a.
Motorways (km)	1970	2,760	53,700	1,030	980	400	1,060	72,800	n.a.
	1989	7,450	83,960	1,100	2,070	1,000	2,990	133,300	n.a.
Change (%)		170	56	7	113	148	183	83	n.a.
Passenger vehicles in use ('000 vehicles)	1970	6,600	89,200	3,800	2,500	2,300	11,800	173,200	n.a.
	1989	12,100	143,700	7,600	5,400	3,600	21,600	339,800	n.a.
Change (%)		84	61	98	118	56	83	96	n.a.
Population ('000 inhabitants)	1970	21,300	205,100	12,800	13,000	8,000	55,600	715,100	3,694,300
	1975	22,700	216,000	13,900	13,700	8,200	56,200	750,300	4,076,900
	1980	24,000	227,800	14,700	14,200	8,300	56,300	779,900	4,449,500
	1985	25,400	239,300	15,800	14,500	8,400	56,600	807,500	4,837,300
	1990	26,500	249,200	16,700	14,800	8,300	56,900	831,100	5,292,000
Change from 1970 (%)		24.4	21.5	30.3	13.5	3.2	2.3	16.2	43.3
Population density (inhabitants/sq. km)	1990	2.7	26.6	2.2	362.7	18.4	232.4	25.9	39.0

Source: OECD Environmental Indicators 1991.

ENVIRONMENTAL LAW

The Australian Constitution does not include a reference to environment or conservation. Commonwealth powers in environmental protection, nature conservation and related fields arise from, or are incidental to, other specified powers. These specific Commonwealth powers include the power to legislate with respect to Territories of the Commonwealth, overseas and interstate trade and commerce, external affairs, corporations, taxation, defence, quarantine and granting financial assistance to States. Effectively the powers relating to environment and conservation are divided among the Commonwealth Government and the State and local governments. In practical terms, however, most decisions on environmental protection, nature conservation, land use and land management in the States are the responsibility of the State Governments.

In October 1990, the Heads of Government at the Federal, State and Territory level held the first of a series of Special Premiers' Conferences (SPCs) aimed at reforming intergovernmental relations in many areas. At the July 1991 SPC, the leaders reaffirmed the desirability of an Intergovernmental Agreement on the Environment. A working group was formed to draw up an agreement to give effect to national arrangements for setting consistent environmental standards across Australia. One model could see the establishment of a Commonwealth–State–Territory Ministerial body, supported by complementary legislation in each jurisdiction for the purpose of creating standards.

In the Commonwealth budget delivered in August 1991, the Government allocated funds towards the establishment of a Commonwealth Environment Protection Agency. A position paper for public comment outlined the role, structure and functions suggested for the EPA. The work of the agency would be divided into a number of major program areas, including: environment quality, industry and technology, monitoring, reporting, auditing and databases; legal and economic analysis; environment assessment; and education and information.

The *Environment Protection (Impact of Proposals) Act 1974* was the first piece of Commonwealth legislation to specifically address environmental issues. The Act defined environment as comprising 'all aspects of the surroundings of human beings, whether affecting them as individuals or in social groupings', and set up procedures to review the environmental impact of development proposals which involved Commonwealth Government decisions.

Other legislation currently administered by the Commonwealth portfolio relevant to environment protection includes:

- *Environment Protection (Alligator Rivers) Act 1978*;
- *Environment Protection (Nuclear Codes) Act 1978*;
- *Environment Protection (Sea Dumping) Act 1981*;
- *Hazardous Waste (Regulation of Exports and Imports) Act 1989;* and
- *Ozone Protection Act 1989.*

In New South Wales, a number of State agencies have responsibility for environmental matters. These include the Department of Planning, Waste Management Authority, State Pollution Control Commission and the National Parks and Wildlife Service. An Environment Protection Authority is planned. Some of the relevant legislation includes:

- *Environmental Planning and Assessment Act 1979*;
- *Heritage Act 1977;*
- *Coastal Protection Act 1979;*
- *Clean Air Act 1961*;
- *Clean Waters Act 1970*;
- *Environmentally Hazardous Chemicals Act 1985*;
- *Ozone Protection 1989;* and
- *Environmental Offences and Penalties Act 1989.*

In Victoria, the Department of Conservation and Environment, established in January 1991, is responsible for wildlife, fisheries, national parks, land protection, water resources, flora and fauna. The Office of the Environment is responsible for climate change issues, coastal management, environment consumer information and coordination of the State Conservation Strategy. The Environment Protection Authority is responsible for protecting and improving the air, land and water environments through management of wastes, control of noise and control of pollution. Some of the legislation includes:

- *Environment Protection Act 1970;*
- *National Parks Act 1975;*
- *Water Act 1989;*
- *Wildlife Act 1975;*
- *Groundwater Act 1969;* and
- *Flora and Fauna Guarantee Act 1988.*

The Queensland Department of Environment and Heritage is responsible for environment protection, nature conservation and the management of national parks. Responsibilities for planning and development are divided between a number of other departments. A proposal to form an Environmental Protection Agency is being investigated. Relevant Queensland legislation includes:

- *Beach Protection Act 1968–1990*;
- *Clean Air Act 1963–1988*;
- *Clean Waters Act 1971–1988*;
- *Heritage Buildings Protection Act 1990*; and
- *Noise Abatement Act 1978–1988.*

In South Australia, the Department of Environment and Planning is responsible for conservation and land management, national parks, planning and environment management. Several statutory bodies such as the Coast Protection Board, Environmental Protection Council, Native Vegetation Authority and the South Australian Planning Commission report to the Minister for Environment and Planning. Relevant legislation includes:

- *Clean Air Act 1984;*
- *Noise Control Act 1976–77;*
- *Marine Environment Protection Act 1990*; and
- *Water Resources Act 1976.*

The Environment Protection Authority in Western Australia is an independent body with the dual role of providing independent advice to the Government and the public on environmental protection, and for the implementation of government powers on pollution control. Other government departments have responsibility for environmental management, but these must be exercised within the policies and advice of the EPA. Some of the relevant legislation includes:

- *Environment Protection Act 1986;*
- *Conservation and Land Management Act 1984;*
- *Country Areas Water Supply Act 1947–1982;* and
- *Land Drainage Act 1925–1983.*

Environmental management in Tasmania is the responsibility of the Department of Environment and Planning. An independent body, the Environmental Protection Advisory Council, which has a majority of members from outside government, also advises the Minister. Some of the legislation includes:

- *Environment Protection Act 1973;*
- *Pollution of Waters by Oil and Noxious Substances Act 1987;* and
- *Environmental Protection (Sea Dumping) Act 1987.*

NATIONAL ACTIVITIES

National collaboration on environmental matters is facilitated through Commonwealth and State ministerial councils and other advisory bodies, and through a variety of nationally coordinated activities and programs.

Australian and New Zealand Environment and Conservation Council (ANZECC)

ANZECC was formed, in 1991, by combining the Australian and New Zealand Environment Council (ANZEC) and the Council of Nature Conservation Ministers (CONCOM).

The Council provides a forum for consultation, cooperation and liaison on matters concerning environmental management and pollution control, and conservation and management of Australia's flora and fauna. These matters have included the control of emissions and noise from motor vehicles, the use and disposal of hazardous chemicals, noise control, water quality, air pollution, solid-waste management, the economics of pollution abatement policies and environmental impact assessment, coastal management, land use policy, biotechnology and climate changes induced by human activities.

'Our Country Our Future'

A statement on the environment entitled *Our Country Our Future* was made by the Prime

Minister on 20 July 1989. The Statement stressed the importance of achieving environmentally sustainable development.

As part of a package to support environmentally sustainable development the Government introduced many new programs, including:

- the development of a strategy comprising a coordinated research program on regional climate modelling and support for development of national and international responses to greenhouse issues;
- the One Billion Trees Program to encourage the growth of an additional billion trees by the end of the century;
- the Save the Bush Program which is aimed at ensuring the survival of remnant native vegetation;
- the Endangered Species Program which hopes to conserve the existing indigenous species in their natural habitat;
- the development of the Environmental Resources Information Network (ERIN) to draw together information on endangered species, vegetation types and heritage sites; and
- the development of a $320 million package for Landcare which consists of the Decade of Landcare starting in 1990, a review of rural policies and taxation arrangements related to land care issues, and an expansion of the existing National Soil Conservation Program which is administered by the Department of Primary Industries and Energy.

In March 1990, the Statement was updated, and additions were made, notably:

- the establishment of a Commonwealth Environment Protection Agency;
- development of a national waste minimisation and recycling strategy; and
- development of a scheme of 'green labelling' of products on the basis of their environmental friendliness.

Progress made on the commitments contained in the Statement has included success in moves to prevent mining in Antarctica, banning driftnet fishing and the import of non-antique ivory, and preparing guidelines for new kraft eucalypt pulp mills.

New initiatives and additional expenditure by the Commonwealth Government on the environment have included:

- research on the greenhouse effect, cane toads and mimosa pigra;
- acceleration of preparation of the National Wilderness Inventory;
- tax deductibility for donations to the Landcare Australia Foundation; and
- development of a national waste minimisation and recycling strategy.

Ecologically sustainable development (ESD)

The Commonwealth Government's ESD strategy reflects growing community recognition that, in pursuing material welfare, insufficient value has often been placed on the environmental factors that also contribute to quality of life. It also reflects a recognition that economic growth and a well-managed environment are fundamentally linked. ESD provides a conceptual framework for integrating economic and environmental objectives, so that products, production processes and services can be developed that are both internationally competitive and more environmentally compatible.

The Commonwealth Government established ESD working groups for each of the main industry sectors of the economy that use natural resources — agriculture, forestry, fisheries, mining — or have a significant impact on those resources — manufacturing, energy production, energy use, transport and tourism. Membership of the working groups has been drawn from Federal and State Governments, industry, unions, conservation, consumer and social welfare organisations. Some of these groups include the Australian Consumers Association (ACA), the Australian Council of Social Service (ACOSS), the Australian Conservation Foundation (ACF), and the World Wide Fund for Nature (WWF).

The task of the working groups is to identify the most important problem areas, to set some priorities for achieving the changes desired, to develop solutions to meet both environmental and economic goals, and to propose time-frames for change. There are five general principles for ESD:

- integrating economic and environmental goals in policies and activities;
- ensuring that environmental assets are appropriately valued;
- providing for equity within and between generations;
- dealing cautiously with risk and irreversibility; and
- recognising the global dimension.

Final reports were released in December 1991. Two additional reports from the chairs of the working groups, *Intersectoral Issues* and *Greenhouse*, were published early in 1992.

Resource Assessment Commission (RAC)

The Resource Assessment Commission was established by the Commonwealth Government in 1989 to advise it on major conservation and resource development issues. The RAC investigates and reports to the Prime Minister on the environmental, economic, financial, cultural and social implications of major resource use proposals, and provides the Government with informed advice about the options available in relation to those resources and their future utilisation.

In 1991, RAC released its report on the use of the resources of the Kakadu Conservation Zone in the Northern Territory. A draft report has been released from the Forest and Timber Inquiry. The third and fourth inquiries will focus on the coastal zone and arid zone respectively.

Australian Biological Resources Study (ABRS)

The ABRS was established in 1973 to stimulate taxonomic and ecological studies of Australian flora and fauna through the provision of grants for research and publication. Its responsibilities include provision of advice on national taxonomic collections and establishment and maintenance of a national taxonomic database. Much of the work of the study is done in State museums, botanic gardens and herbaria which were established during the last century. CSIRO also carries out important research relating to flora and fauna.

Current major projects of ABRS include preparation of a 60 volume *Flora of Australia*, a 10 volume *Fauna of Australia*, compilation of a 70 volume *Zoological Catalogue of Australia* and establishment of database exchange systems for museums and herbaria for biogeographic and taxonomic information. The ABRS is managed by a small unit of professional scientists within the Australian National Parks and Wildlife Service.

The ABRS Participatory Program is a goal-directed grants program supporting the documentation of Australia's biodiversity. In summary, only 100,000 of the estimated 300,000 species of Australian animals have been collected and described. In the plants, 18,000 species of higher plants have been described out of an estimated 24,000. The number of lower plant species (fungi, mosses, algae, etc.) is unknown. To date more than 750 books and scientific papers have been published with ABRS support. The grant funds for 1991–92 are about $2 million.

STATUTORY AUTHORITIES

Australian National Parks and Wildlife Service (ANPWS)

The ANPWS was established under the *National Parks and Wildlife Conservation Act 1975*. The ANPWS is the principal nature conservation agency of the Commonwealth Government. It works in close cooperation with other Commonwealth authorities and with relevant State and Territory agencies.

The ANPWS is responsible for management of parks and reserves declared under the Act. Most significant of these are Kakadu National Park and Uluru (Ayers Rock–Mount Olga) National Park in the Northern Territory. National parks are also declared on Norfolk Island and Christmas Island and four national nature reserves have been declared in Australian waters. Ningaloo Marine Park is declared jointly under the National Parks and Wildlife Conservation Act and Western Australian legislation.

Wildlife conservation and management programs include the regulation and control of trade in wildlife and wildlife products through the administration of the *Wildlife Protection (Regulation of Exports and Imports) Act 1982*; administration of the *Whale Protection Act 1980*; administration of certain international agreements; and cooperative programs with the

States with an emphasis on rare and endangered species. The Endangered Species Program and the Save the Bush Program are now managed by the ANPWS.

The ANPWS is also charged with the delivery of programs to enhance Aboriginal employment and development opportunities in nature conservation and land management related fields.

In addition the ANPWS carries out and supports research relevant to its charter and delivers public information and education programs on nature conservation issues.

The Australian National Botanic Gardens, the Australian Biological Resources Study and the Environmental Resources Information Network were integrated into the ANPWS in 1990.

Great Barrier Reef Marine Park Authority

This Authority was established by the *Great Barrier Reef Marine Park Act 1975*. The Authority's goal is to provide for the protection, wise use, understanding and enjoyment of the Great Barrier Reef in perpetuity through the development and care of the Great Barrier Reef Marine Park.

The Marine Park covers an area of 344,000 square kilometres representing 98.5 per cent of the region inscribed on the World Heritage List. The value of economic activity in the Marine Park has been estimated at $1,000 million per annum.

Management of the Marine Park is a cooperative venture with Queensland Government agencies. The main strategy used in management of the Park is 'zoning'. Zoning provides for separate, potentially conflicting activities while allowing all reasonable uses and ensuring the long-term conservation of the Reef's ecosystem.

The Authority ensures that it achieves competence and fairness in the care and development of the Marine Park by obtaining and interpreting information relevant to the understanding of the Great Barrier Reef. Most of this research is contracted to agencies such as universities although Authority staff may also undertake some research.

A major objective of the Authority is to enhance community understanding, appreciation, experience of and support for the Great Barrier Reef and the Marine Park.

The Authority also operates the Great Barrier Reef Aquarium which features a living coral reef system. The Aquarium aims to enhance community understanding of the Great Barrier Reef and support for management of the Marine Park by providing a readily accessible coral reef and environment onshore.

WORLD HERITAGE AREAS

The World Heritage Convention was adopted by the UNESCO General Conference at its 17th session in Paris on 16 November 1972 and came into force in 1975. Australia was one of the first countries to ratify the Convention in August 1974. As at 1 January 1992 there were nine Australian properties on the World Heritage List. The Australian Government has recently been involved in a process to identify geological, including fossil, sites of potential World Heritage value. Twenty-eight sites in Australia and its territories have been identified.

Australia's nine listed World Heritage sites are described below.

Willandra Lakes Region of New South Wales

The site was inscribed on the World Heritage List in 1981. The approximate area of the site is 600,000 hectares. The semi-arid environment holds outstanding evidence of the antiquity of the human race, of the life and culture of early Aboriginal societies, and an unrivalled record of past environments and landscapes. The region is one of the earliest known sites for Homo sapiens in the world and contains the earliest known cremation site.

Great Barrier Reef

This site is situated on the north-east coast of Queensland and covers 34.8 million hectares. It became part of the World Heritage List in 1981. The Great Barrier Reef is the world's most extensive coral reef and one of the richest in terms of faunal diversity. The area is also of cultural importance, containing many middens (i.e., refuse from a prehistoric dwelling place or cooking area), and other archaeological sites of Aboriginal or Torres Strait Islander origin.

Lord Howe Island Group

This site is situated off the east coast of New South Wales and was entered into the heritage list in 1982. The island group of approximately 145,000 hectares, was inscribed on the List for its unique landforms and biota, its diverse and largely intact ecosystems, natural beauty and habitats for rare and endangered species. The waters surrounding Lord Howe Island provide an unusual mixture of temperate and tropical organisms. The area includes the most southerly coral reef in the world, which provides a rare example of the transition between coral and algal reefs.

Australian East Coast Temperate and Sub-Tropical Rainforest Parks

This site in New South Wales covers an area of approximately 204,000 hectares and was entered on the World Heritage List in 1986. The area includes the largest stand of littoral rainforest (a type of rainforest found next to and influenced by the sea) in NSW, one of the largest erosion calderas in the world (Mt Warning), and a range of primitive plant species.

Kakadu National Park (Stages 1 and 2)

The park was placed on the list in 1981 and added to in 1987. It is situated in the Northern Territory and is approximately 1.31 million hectares in size. The area consists of tidal flats, flood plains, lagoons, major river systems, and the sandstone escarpments of the Arnhem Land plateau. Great cultural significance lies in the ancient Aboriginal sites and the large galleries, with some art sites dating back to the Ice Age.

Uluru National Park

Also in the Northern Territory, this park of about 133,000 hectares was placed on the list in 1987. Uluru, which contains Ayers Rock and the Olgas, has been the focus for religious, cultural, territorial and economic inter-relations amongst Aboriginal peoples of the western desert for many thousands of years.

Wet Tropics of Queensland

Entered on the World List in 1988, this area of approximately 900,000 hectares includes very old and also relatively recent geological elements. It is a region of spectacular scenery and includes one of the largest rainforest wilderness areas in Australia. The association of fringing coral reefs and rainforest coastline in the Cape Tribulation region is found nowhere else in Australia and is a rare combination anywhere. The area also contains primitive flowering plants.

Tasmanian Wilderness

This area became a World Heritage site in 1982, and was added to in 1989. The approximate size is 1.38 million hectares. The Tasmanian Wilderness includes a range of ecosystems, some of the last wild rivers in the world and is Australia's most glacified area. Archaeological sites, including painted caves, provide evidence of human occupation during the last Ice Age.

Shark Bay

This area was entered on the list in December 1991. It includes 1,500 kilometres of the Western Australian coast, about 800 kilometres north of Perth, and includes a series of peninsulas and islands. The marine areas include the world's largest area of sea grass. Shark Bay was only the eleventh place in the world to satisfy all criteria for World Heritage listing, namely, being an example of earth's evolutionary history and biological evolution, superlative in its natural phenomena, and having natural habitats where threatened species live. Shark Bay is home to marine fauna such as dolphins, dugongs, manta rays, whales and sharks.

INTERNATIONAL COOPERATION

In the statement, *Our Country Our Future*, the Prime Minister, announced that the Federal Government would appoint a special Ambassador for the Environment to help give Australia a strong and effective voice in the many international environment debates. The Right Honourable Sir Ninian Stephen, a previous Governor-General, was appointed and since then has actively represented Australia's position on environmental and development issues.

In June 1992, a major international event, the United Nations Conference on Environment and Development (UNCED), will take place in Brazil. 'The Earth Summit' will consider international responses to environment and development issues and the integration of environment and economic decision making on a global scale. The Preparatory Committee for UNCED concluded in August 1990 that the following environmental issues are among those of major concern in maintaining the quality of the Earth's environment and in achieving sustainable development in all countries:

- protection of the atmosphere by combating climate change, depletion of the ozone layer and transboundary air pollution;
- protection of the quality and supply of freshwater resources;
- protection of the oceans and coastal areas;
- protection and management of land resources by combating deforestation, desertification and drought;
- conservation of biological diversity;
- environmentally sound management of biotechnology;
- environmentally sound management of wastes, particularly hazardous wastes and toxic chemicals, as well as prevention of illegal international traffic in toxic and dangerous products and wastes;
- improvement of the living and working environment of the poor in urban slums and rural areas; and
- protection of human health conditions and improvement of the quality of life.

Australia recognises that the development of new or improved legal instruments such as treaties and other legal mechanisms which cover dispute resolution and compliance will be necessary to address many global environmental problems. The following list identifies some of the international treaties and conventions relating to the environment that Australia has signed and/or ratified:

General Environmental

- Antarctic Treaty;
- Convention for the Protection of the World Cultural and Natural Heritage; and
- Convention on the Conservation of Nature in the South Pacific.

Coastal/Marine Resources

- Indo-Pacific Fishery Commission Convention;
- International Convention for the Regulation of Whaling;
- UN Convention on the Law of the Sea; and
- Convention for the Prohibition of Fishing with Long Driftnets in the South Pacific.

Toxic and Hazardous Wastes

- South Pacific Nuclear Free Zone Treaty;
- Convention on Early Notification of a Nuclear Accident;
- Treaty Banning Nuclear Weapons Testing in the Atmosphere, in Outer Space and Under Water;
- International Convention for the Prevention of Pollution from Ships; and
- International Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (London Dumping Convention).

Biological Diversity

- Convention on Wetlands of International Importance;
- Convention on International Trade in Endangered Species of Wild Fauna and Flora; and
- International Plant Protection Convention.

Air Quality

- Vienna Convention for the Protection of the Ozone Layer; and
- Montreal Protocol on Substances that Deplete the Ozone Layer.

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Other Publications

Australian National Report to the United Nations Conference on Environment and Development, Public Discussion Draft, July 1991

OECD Environmental Indicators 1991

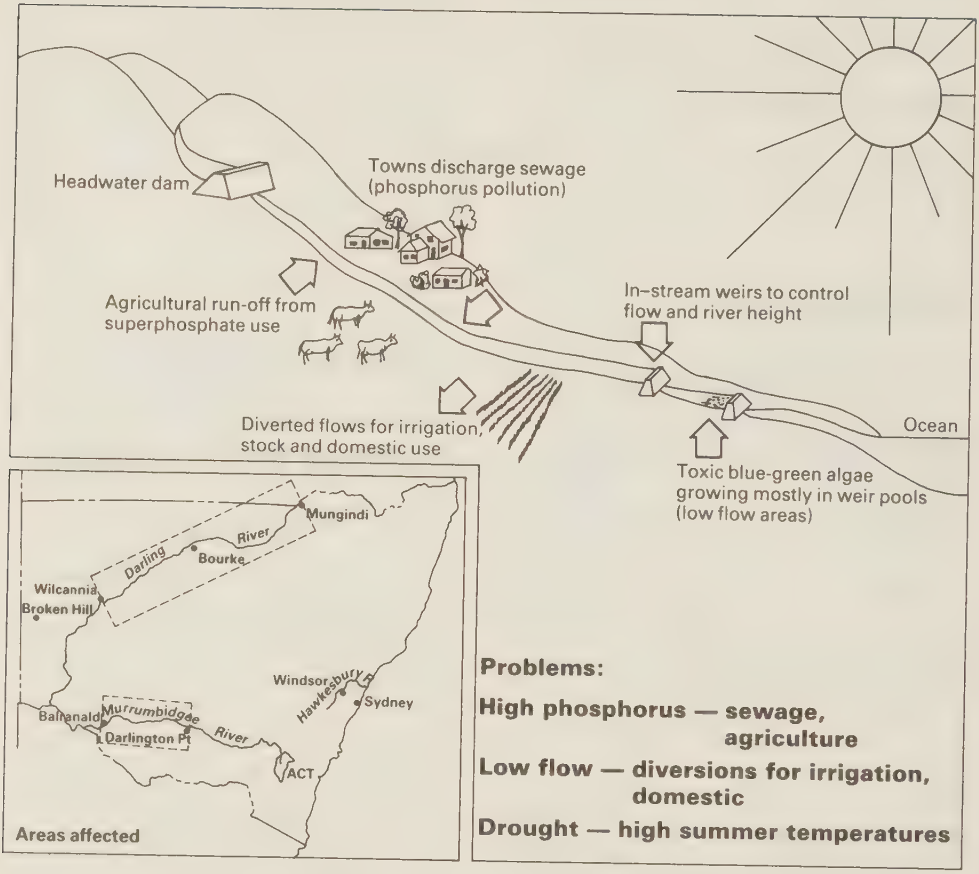
Proposed Commonwealth Environment Protection Agency Position Paper for Public Comment, July 1991

FOR MORE INFORMATION

The ABS has a far wider range of information on Australia than that contained in the *Year Book*. Information is available in the form of regular publications, electronic data services, special tables and from investigations of published and unpublished data.

For further information contact ABS Information Services at one of the addresses listed on the page facing the Introduction to the *Year Book*.

TOXIC ALGAE IN RIVERS


Headwater dam
Towns discharge sewage (phosphorus pollution)
Agricultural run-off from superphosphate use
In–stream weirs to control flow and river height
Diverted flows for irrigation, stock and domestic use
Ocean
Toxic blue-green algae growing mostly in weir pools (low flow areas)
Mungindi
Darling River
Bourke
Wilcannia
Broken Hill
Windsor
Hawkesbury R
Sydney
Balranald
Murrumbidgee River
Darlington Pt
ACT
Areas affected
Problems:
High phosphorus — sewage, agriculture
Low flow — diversions for irrigation, domestic
Drought — high summer temperatures

Source: Institute of Natural Resources and Environment, Division of Water Resources, Griffith Laboratory, CSIRO.

Blue-green Algae

(This special article has been contributed by the Institute of Natural Resources and Environment, Division of Water Resources, Griffith Laboratory, CSIRO.)

New found fame has escalated toxic blue-green algae from a naturally occurring phenomenon, to one of the nation's most critical water quality issues.

The presence of blue-green algae in Australian rivers, lakes, dams and estuaries is widespread. Every mainland State has recorded outbreaks and the threat they pose has been well publicised by the media.

Blue-green algae, known within the scientific community as Cyanobacteria, grow naturally in most bodies of water.

Microscopic plants, algae thrive on a combination of nutrients, light, warmth and calm conditions.

Blue-green algae can be found at various depths within a body of water. However, when conditions are favourable a bloom is triggered and the algae will appear in abundance at the surface.

Algal blooms often take on the appearance of bright green sawdust before forming a mat or scum on water surfaces. Their smell ranges from musty and earthy odours to a putrid stench, which is most noticeable when decomposition begins.

A concern to health and the environment

There are many species of blue-green algae but only a few are toxin producing. In the non-toxic form, the algae make drinking water unattractive and smelly. The toxic variety are a major health and ecological concern.

There are three main genera of toxin producing algae in Australia. Anabaena produces an alkaloid nerve toxin, which can cause muscular and respiratory disorders; Microcystis and Nodularia produce peptide toxins which can kill liver cells.

No human deaths have been recorded following consumption of water infected by toxic algae. However, several ailments are associated with human consumption or skin contact. These include gastroenteritis, liver damage and dermatitis. There is also concern that the toxins promote liver cancer.

Stock deaths are widespread and occur when stock consume algal scum which has accumulated on the banks of water supplies.

Inland water ecosystems also face an enormous threat from the presence of blue-green algae. As the surface scum begins to die and decompose, the toxins are released and the oxygen supplies on which vegetation, fish and other water life depend, are depleted.

Why blooms occur

While it is recognised that enrichment with nutrients, light, warmth and still or calm waters encourage the growth of blue-green algae, the occurrence of these factors alone does not necessarily precipitate a bloom. The combination of factors required to trigger algal blooms remains poorly understood.

Calm waters, maximum light penetration, and warm surface temperatures are common to lakes, reservoirs and farm dams during the summer months when most major blooms are recorded. Rivers are also left vulnerable at this time due to restricted water flow from irrigation offtake.

One major cause of deteriorating water quality is overloading of Australian inland waters with nutrient pollutants, particularly phosphates. Development, industrialisation and farming have resulted in poorly treated sewerage and agricultural and urban run-off entering our river systems.

Eutrophication (nutrient enrichment) is recognised as a critical factor in creating an algal bloom and a key to their prevention through effective catchment management.

How blooms and their toxins are treated

At present, there are only three commonly used methods for removing blue-green algae and their toxins from water; algicides, dissolved air flotation and activated carbon.

Algicides, such as copper sulphate, are effective in killing algal blooms, however, there are distinct disadvantages in their use — they kill indiscriminately. The algicides are toxic to many aquatic life forms, not only algae, can kill fish and damage the delicate ecosystem of inland waters.

While an algicide will kill an algal bloom, this itself creates a problem. Once the treatment has been applied the algal cells rupture, releasing toxins into the water supply.

A second treatment for use in large-scale water facilities involves the bubbling of air into a holding tank where the algae are floated to the surface and are then removed. This method is expensive and fails to remove any toxins already released into the water supply.

A third method, the use of activated carbon, has been found to be the most effective method to date for the safe removal of algal toxins and associated odours from water. The carbon can be applied in a granular or powdered form to filtration units to absorb the contaminants, although it is essential that correct dosing rates and contact times are employed.

How Australia has reacted to the problem

The severity and frequency of algal outbreaks during the period between October 1991 and January 1992, has resulted in public outcry. Government, industry, scientific and community recognition of the nature of the problem has created a foundation for national commitment.

Already, special task forces have been initiated, research dollars have been bolstered and public concern for the future of Australian inland waters has given a new priority to water quality issues.

Chapter Fifteen

Agriculture

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The major source of the statistics in this chapter is the Agricultural Census conducted by the ABS at 31 March each year.

The ABS excludes from the Census those establishments which make only a small contribution to overall agricultural production. Since 1986–87, the Census includes establishments with agricultural activity which have an estimated value of agricultural operations of $20,000 or more. Prior to this (1982–83 to 1985–86) the cut-off value was $2,500.

While this alteration has resulted in some changes in the counts of numbers of establishments engaged in agricultural activities, the effect on the statistics of production of major commodities is small. Statistics of minor commodities normally associated with small scale operations may be affected to a greater extent.

Details of the method used in the calculation of the estimated value of agricultural operations (EVAO) are contained in the publication *Agricultural Industries: Structure of Operating Units, Australia* (7102.0).

Financial statistics are collected in the Agricultural Finance Survey, conducted annually since 1986–87.

STRUCTURE OF AGRICULTURAL INDUSTRIES

The following tables provide information on the number, size and type of agricultural establishments during 1989–90.

ESTIMATED VALUE OF AGRICULTURAL OPERATIONS OF ESTABLISHMENTS WITH AGRICULTURAL ACTIVITY YEAR ENDING 31 MARCH 1990

Industry of establishment(a)		Estimated value of agricultural operations ($'000)(b)											
ASIC Code	Description	Less than 20	20–29	30–39	40–49	50–59	60–74	75–99	100–149	150–199	200–499	500 or more	Total establish-ments
0124	Poultry for meat	11	12	17	19	14	38	68	148	113	158	83	681
0125	Poultry for eggs	18	17	13	13	10	19	29	57	62	217	190	645
0134	Grapes	134	249	291	366	346	453	652	578	218	173	61	3,521
0135	Plantation fruit	90	168	162	152	132	161	179	208	113	157	58	1,580
0136	Orchard and other fruit	474	448	413	378	345	431	554	753	458	761	256	5,271
0143	Potatoes	17	34	25	41	58	80	137	216	190	430	132	1,360
0144	Vegetables (except potatoes)	235	244	247	220	202	249	308	391	284	682	389	3,451
0181	Cereal grains (incl. oilseeds n.e.c.)	186	241	314	317	311	443	731	1,233	839	2,011	552	7,178
0182	Sheep—cereal grains	76	224	416	471	582	928	1,929	3,670	2,915	6,730	1,615	19,556
0183	Meat cattle—cereal grains	96	161	209	182	160	247	301	440	286	473	98	2,653
0184	Sheep—meat cattle	231	491	590	596	578	761	1,030	1,512	907	1,634	417	8,747
0185	Sheep	672	1,216	1,580	1,572	1,465	2,025	3,185	4,689	3,111	5,566	1,208	26,289
0186	Meat cattle	2,206	2,992	2,732	1,922	1,434	1,478	1,622	1,605	891	1,502	564	18,948
0187	Milk cattle	157	268	389	548	696	1,386	2,827	4,433	2,037	1,620	90	14,451
0188	Pigs	50	69	89	94	92	100	180	261	217	405	176	1,733
0191	Sugar cane	66	110	140	183	274	507	905	1,288	678	954	98	5,203
0192	Peanuts	3	9	13	11	16	22	27	29	17	14	2	163
0193	Tobacco	2	3	7	8	14	31	74	170	98	90	5	502
0194	Cotton	2	1	2	2	4	6	11	22	19	185	332	586
0195	Nurseries	456	152	158	218	93	110	253	211	174	308	150	2,283
0196	Agriculture n.e.c.	456	485	442	305	225	235	218	222	123	210	56	2,977
	Total (ASIC code 01)	*5,638*	*7,594*	*8,249*	*7,618*	*7,051*	*9,710*	*15,220*	*22,136*	*13,750*	*24,280*	*6,532*	*127,778*
02	Services to agriculture	11	15	14	9	2	13	15	9	5	7	—	100
03	Forestry and logging	2	3	2	5	—	2	1	5	—	—	1	21
04	Fishing and hunting	3	1	—	1	1	1	1	4	—	—	—	12
	Total (ASIC Division A)	*5,654*	*7,613*	*8,265*	*7,633*	*7,054*	*9,726*	*15,237*	*22,154*	*13,755*	*24,287*	*6,533*	*127,911*
B	Mining	—	—	1	—	1	2	2	—	1	2	—	9
C	Manufacturing	14	14	10	12	10	12	13	16	9	12	21	143
D	Electricity, gas and water	—	—	—	—	—	1	—	—	—	1	—	2
E	Construction	14	22	16	15	10	9	4	11	5	8	—	114
F	Wholesale and retail trade	25	16	19	16	9	9	10	10	8	14	4	140
G	Transport and storage	20	30	21	17	9	17	11	15	9	6	1	156
H	Communication	—	—	—	—	—	—	—	—	—	—	—	—
I	Finance, property and business services	5	6	1	8	—	2	2	2	—	1	1	28
J	Public administration and defence	—	—	1	—	—	—	1	—	1	—	—	3
K	Community services	6	6	4	7	2	8	11	21	18	38	13	134
L	Recreation, personal and other services	4	4	6	2	1	3	—	5	3	2	—	30
	Total all industries	5,742	7,711	8,344	7,710	7,096	9,789	15,291	22,234	13,809	24,371	6,573	128,670

(a) As set out in the *Australian Standard Industrial Classification (ASIC)* (1201.0 and 1202.0). (b) Determined by valuing the principal crop and livestock information collected in the Agricultural Census.
Source: Characteristics of Australian Farms (7102.0).

ESTABLISHMENTS WITH AGRICULTURAL ACTIVITY, 31 MARCH 1990

ASIC Code	*Industry of establishment(a)* *Description*	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Aust.*
0124	Poultry for meat	349	121	91	59	51	10	—	—	681
0125	Poultry for eggs	199	141	139	53	90	16	5	1	645
0134	Grapes	576	1,533	55	1,202	135	18	2	—	3,521
0135	Plantation fruit	693	—	779	—	103	—	7	—	1,580
0136	Orchard and other fruit	1,577	1,008	982	1,093	392	209	9	1	5,271
0143	Potatoes	121	474	221	131	148	265	—	—	1,360
0144	Vegetables (except potatoes)	593	588	1,180	440	417	216	16	1	3,451
0181	Cereal grains (incl. oilseeds n.e.c)	1,416	1,566	1,998	1,671	510	8	9	—	7,178
0182	Sheep — cereal grains	6,155	3,408	337	4,535	5,097	24	—	—	19,556
0183	Meat cattle — cereal grains	840	105	1,616	69	14	4	5	—	2,653
0184	Sheep — meat cattle	3,770	2,514	650	818	600	381	—	14	8,747
0185	Sheep	10,152	7,612	1,591	2,337	3,582	980	—	35	26,289
0186	Meat cattle	5,473	4,389	6,997	398	995	510	175	12	19,948
0187	Milk cattle	2,273	7,989	2,022	905	496	761	2	3	14,451
0188	Pigs	510	254	560	234	107	67	1	—	1,733
0191	Sugar cane	422	—	4,781	—	—	—	—	—	5,203
0192	Peanuts	1	—	162	—	—	—	—	—	163
0193	Tobacco	18	190	294	—	—	—	—	—	502
0194	Cotton	326	—	260	—	—	—	—	—	586
0195	Nurseries	778	330	691	211	200	55	16	2	2,283
0196	Agriculture n.e.c	944	694	745	280	208	97	9	—	2,997
	Total (ASIC code 01)	*37,186*	*32,916*	*26,151*	*14,436*	*13,145*	*3,621*	*254*	*69*	*127,778*
02	Services to agriculture	5	32	23	13	25	2	—	—	100
03	Forestry and logging	2	1	8	—	1	9	—	—	21
04	Fishing and hunting	—	—	1	2	3	6	—	—	12
	Total (ASIC Division A)	*37,193*	*32,949*	*26,183*	*14,451*	*13,174*	*3,638*	*254*	*69*	*127,911*
B	Mining	2	2	1	2	2	—	—	—	9
C	Manufacturing	14	34	10	37	40	6	1	1	143
D	Electricity, gas and water	—	2	—	—	—	—	—	—	2
E	Construction	11	53	20	14	11	5	—	—	114
F	Wholesale and retail trade	30	32	26	16	13	22	1	—	140
G	Transport and storage	36	48	20	20	13	19	—	—	156
H	Communication	—	—	—	—	—	—	—	—	—
I	Finance, property and business services	6	4	7	6	4	—	1	—	28
J	Public administration and defence	2	—	—	1	—	—	—	—	3
K	Community services	28	9	52	10	27	8	—	—	134
L	Recreation, personal and other services	9	11	2	2	6	—	—	—	30
	Total all industries	**37,331**	**33,144**	**26,321**	**14,559**	**13,290**	**3,698**	**257**	**70**	**128,670**

(a) As set out in the *Australian Standard Industrial Classification (ASIC)* (1201.0 and 1202.0).

Source: Characteristics of Australian Farms (7102.0).

EMPLOYMENT IN AGRICULTURE

EMPLOYED PERSONS IN AGRICULTURE AND SERVICES TO AGRICULTURE
('000)

August	*Males*	*Married females*	*All females*	*Persons*
1985	287.5	90.3	107.7	395.3
1986(a)	278.6	94.8	112.8	391.4
1987	271.6	90.1	103.1	374.7
1988	284.0	97.5	118.7	402.7
1989	269.0	93.3	111.1	380.1
1990	282.9	99.4	116.8	399.7

(a) From April 1986, the estimates of employed persons include persons who worked without pay between 1 and 14 hours per week in a family business or on a farm (i.e., unpaid family helpers).

Source: Labour Statistics, Australian Bureau of Statistics.

GROSS VALUE OF AGRICULTURAL COMMODITIES PRODUCED

The gross value of agricultural commodities produced is the value placed on recorded production at the wholesale prices realised in the market place.

GROSS VALUE OF AGRICULTURAL COMMODITIES PRODUCED
($ million)

Commodity	*1984–85*	*1985–86*	*1986–87*	*1987–88*	*1988–89*	*1989–90*
Crops						
Barley for grain	759.3	586.8	423.0	454.9	558.1	708.8
Oats for grain	129.6	138.3	160.5	191.0	232.6	178.0
Wheat for grain	3,202.9	2,693.7	2,379.4	2,002.8	2,950.3	2,775.1
Other cereal grains	400.8	346.4	316.4	392.5	411.0	360.7
Sugar cane cut for crushing	512.2	494.2	580.2	608.9	744.2	874.0
Fruit and nuts	670.9	678.6	785.9	832.1	951.6	1,022.1
Grapes	259.4	270.0	251.5	345.6	427.3	392.2
Vegetables	628.8	713.6	868.2	928.4	1,165.3	1,328.2
All other crops(a)	1,303.5	1,430.4	1,614.3	1,882.4	2,202.9	2,237.2
Total crops	*7,867.4*	*7,352.0*	*7,379.4*	*7,638.6*	*9,643.3*	*9,876.3*
Livestock slaughterings and other disposals(b)						
Cattle and calves(c)	2,253.2	2,393.9	2,824.7	3,047.9	3,189.6	3,860.5
Sheep and lambs	576.1	531.6	721.2	803.9	738.3	585.4
Pigs	438.1	(d)438.3	(d)468.5	(d)536.1	629.3	656.0
Poultry	512.6	(d)559.1	(d)601.7	(d)671.2	730.3	777.9
Total livestock slaughterings and other disposals(e)	*(e)3,783.3*	*(d)3,923.0*	*(d)4,624.6*	*(d)(e)5,074.3*	*5,302.3*	*5,893.3*
Livestock products						
Wool	2,434.4	2,693.4	3,333.6	5,517.3	5,906.0	5,718.1
Milk	1,035.4	1,106.7	1,257.4	1,390.9	1,635.1	1,749.0
Eggs	291.2	297.7	291.6	304.4	321.4	311.8
Total livestock products(f)	*(g)3,792.8*	*(h)4,125.3*	*(h)4,915.6*	*(g)7,247.0*	*(i)7,894.0*	*(i)7,806.7*
Total value of agricultural commodities produced	**15,443.5**	**(j)15,406.9**	**(j)16,927.8**	**(j)19,962.5**	**(k)22,840.4**	**(k)23,585.1**

(a) Includes pastures and grasses. Excludes crops for green feed or silage. (b) Includes net exports of livestock. (c) Includes dairy cattle slaughtered. (d) Excludes Northern Territory pigs and poultry. (e) Includes goat slaughterings, exports and buffalo slaughterings. (f) Includes honey and beeswax. (g) Includes cashmere, cashgora, mohair, liquid goat milk, honey and beeswax. Excludes Northern Territory and Australian Capital Territory milk and eggs. (h) Excludes Northern Territory and Australian Capital Territory milk and eggs. (i) Excludes Northern Territory milk and eggs. (j) Includes Northern Territory pigs, poultry, milk and eggs. (k) Includes Northern Territory pigs, poultry, milk and eggs and Australian Capital Territory milk and eggs.

Source: Value of Agricultural Commodities Produced, Australia (7503.0).

The following table shows the index of the gross value of commodities produced at constant prices, i.e., it is a measure of change in value after the direct effects of price changes have been eliminated.

INDEX OF VALUES AT CONSTANT PRICES OF AGRICULTURAL COMMODITIES PRODUCED(a)
(Base year: 1984–85 = 1,000)

Commodity	*1984–85*	*1985–86*	*1986–87*	*1987–88*	*1988–89*	*1989–90*
Crops						
Barley for grain	1,000	876	645	625	596	728
Oats for grain	1,000	943	1,171	1,276	1,325	1,164
Wheat for grain	1,000	857	880	652	750	759
Other cereal grains	1,000	974	924	1,066	899	799
Sugar cane(b)	1,000	987	967	978	1,036	1,049
Fruit and nuts	1,000	1,007	1,099	1,138	1,097	1,160
Grapes	1,000	1,018	936	921	1,002	912
Vegetables	1,000	988	1,046	1,178	1,172	1,264
All other crops(c)	1,000	1,024	1,053	1,134	1,133	1,101
Total crops	*1,000*	*931*	*932*	*873*	*906*	*920*
Livestock slaughterings and other disposals						
Cattle and calves(d)	1,000	1,057	1,138	1,202	1,139	1,280
Sheep and lambs	1,000	1,065	1,106	1,073	1,073	1,004
Pigs	1,000	1,041	1,086	1,141	1,184	1,218
Poultry	1,000	1,063	1,100	1,161	1,178	1,231
Total livestock slaughterings(e)	*1,000*	*1,057*	*1,122*	*1,170*	*1,129*	*1,224*
Livestock products						
Wool	1,000	1,002	1,070	1,109	1,154	1,328
Milk	1,000	996	1,019	1,015	1,038	1,033
Eggs	1,000	1,010	1,022	1,051	1,010	999
Total livestock products(f)	*1,000*	*1,000*	*1,052*	*1,078*	*1,110*	*1,219*
Total agricultural commodities produced	**1,000**	**979**	**1,009**	**996**	**1,011**	**1,068**

(a) Indexes of values at constant prices (weighted by average unit values of the year 1984–85). (b) Sugar cane cut for crushing and planting. (c) Includes pasture and grasses. Excludes crops for green feed or silage. (d) Includes dairy cattle slaughtered. (e) Component series based on carcass weight. Includes goat slaughterings. (f) Includes honey, beeswax and goat products.

Source: Value of Agricultural Commodities Produced, Australia (7503.0).

FINANCIAL STATISTICS OF AGRICULTURAL ENTERPRISES

Estimates of selected financial aggregates of enterprises predominantly engaged in agricultural activity are shown in the following tables. The estimates have been derived from the Agricultural Finance Survey (AFS), which was conducted on an irregular basis until 1986–87 when it was re-introduced as an annual survey. From 1986–87 the population for the AFS consisted of all management units classified to an industry class within Subdivision 01 'Agriculture' of the Australian Standard Industrial Classification and with an estimated value of agricultural operations of $20,000 or more.

ESTIMATES OF SELECTED FINANCIAL AGGREGATES OF AGRICULTURAL ENTERPRISES(a)
1980–81 AND 1987–88 TO 1990–91
($ million)

	1980–81	*1987–88*	*1988–89*	*1989–90*	*1990–91*
Sales from crops	4,543.7	6,507.7	6,991.2	7,795.2	6,879.2
Sales from livestock	3,134.6	5,052.1	5,399.3	5,519.1	4,640.0
Sales from livestock products	2,422.2	6,024.1	6,715.7	7,157.9	5,827.8
Turnover	10,439.7	18,708.0	20,272.3	21,823.5	18,425.0
Purchases and selected expenses	5,283.5	9,852.5	10,672.6	11,447.8	10,348.5
Value added(b)	5,034.9	10,239.0	11,690.3	10,237.4	7,092.6
Adjusted value added(b)	4,471.7	9,160.6	10,500.3	8,924.4	5,845.6
Gross operating surplus(b)	3,669.1	7,563.1	8,643.3	6,897.0	3,989.2
Interest paid	n.a.	1,473.6	1,681.1	2,227.5	1,872.7
Cash operating surplus(c)	3,419.1	4,999.9	5,227.3	5,330.6	3,506.3
Total net capital expenditure	1,301.3	1,566.1	1,849.1	1,906.3	n.y.a.
Gross indebtedness	4,941.0	11,425.6	12,948.0	14,518.0	13,081.7

(a) Data for 1986–87 onwards are not strictly comparable with previous periods. (b) Includes an estimate for the value of the increase in livestock. (c) Excludes an estimate for the value of the increase in livestock.

Source: Agricultural Industries, Financial Statistics, Australia, First Preliminary (7509.0).

ESTIMATES OF SELECTED FINANCIAL AGGREGATES OF AGRICULTURAL ENTERPRISES
1989–90(a)
($ million)

	NSW(b)	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*Aust.(c)*
Sales from crops	1,735.8	1,362.2	2,275.5	1,055.9	1,167.8	132.6	7,795.2
Sales from livestock	1,711.0	920.5	1,572.9	363.5	485.8	115.6	5,519.1
Sales from livestock products	2,470.7	1,686.6	690.2	672.4	1,299.3	265.0	7,157.9
Turnover	6,304.4	4,238.1	4,863.6	2,233.8	3,099.4	559.1	21,823.5
Purchases and selected expenses	3,636.6	2,121.3	2,586.1	1,054.4	1,682.1	288.7	11,447.8
Value added(d)	2,656.7	2,040.7	2,691.1	1,109.7	1,198.7	292.7	10,237.4
Adjusted value added(d)	2,246.1	1,769.5	2,433	4,983.1	1,016.7	261.8	8,924.4
Gross operating surplus(d)	1,627.9	1,347.6	1,956.9	814.4	804.3	198.8	6,897.0
Interest paid	677.8	427.1	526.1	217.4	278.5	59.3	2,227.5
Cash operating surplus(e)	1,324.7	1,004.9	1,125.5	743.0	846.8	129.0	5,330.6
Total net capital expenditure	460.4	339.4	415.7	239.2	331.5	64.9	1,906.3
Gross indebtedness	4,486.0	2,608.5	3,235.6	1,328.6	2,144.6	398.9	14,518.0
Number of enterprises	32,547	30,180	23,347	13,082	12,003	3,215	114,860

(a) State dissection for 1990–91 not yet available. (b) Number of enterprises includes estimates for Australian Capital Territory. (c) Includes Northern Territory and estimates for multi State enterprises. (d) Includes an estimate for the value of the increase in livestock. (e) Excludes an estimate for the value of the increase in livestock.

Source: Agricultural Industries, Financial Statistics, Australia, First Preliminary (7509.0).

LAND USED FOR AGRICULTURE

The total area of agricultural establishments in 1989–90 constituted 60.7 per cent of the Australian land area, the remainder being urban areas, State forests, mining leases and national parks etc., with an overwhelming proportion of unoccupied land (mainly desert). The balance data include large areas of arid or rugged land held under grazing licences but not always used for grazing. Balance data also include variable amounts of fallow land.

The area cropped represents up to 3.6 per cent of the area of agricultural establishments.

AREA OF ESTABLISHMENTS WITH AGRICULTURAL ACTIVITY
(million hectares)

At 31 March	NSW	Vic.	Qld	SA	WA	Tas.	NT	Aust. (incl. ACT)
1985	63.7	14.2	157.2	62.7	114.0	2.1	74.0	488.0
1986	60.0	13.2	154.3	57.9	109.6	1.9	71.4	468.3
1987	60.8	13.1	151.7	59.5	112.7	1.9	71.2	471.0
1988	61.5	13.1	152.5	60.0	113.5	1.9	69.6	472.0
1989	61.6	13.1	151.3	58.0	112.6	1.9	68.3	466.9
1990	62.0	13.1	152.3	57.5	110.9	1.9	68.8	466.6

Source: Summary of Crops, Australia (7330.0).

LAND UTILISATION
(million hectares)

	Area of			Total	
Year	Crops(a)	Sown pastures and grasses	Balance(b)	Area of establishments	Percentage of Australian land area (768,284,000 hectares)
1984–85	21.1	27.1	439.8	488.0	63.5
1985–86	20.6	26.4	421.3	468.3	61.0
1986–87	19.8	27.3	423.9	471.0	61.3
1987–88	18.4	28.6	425.0	472.0	61.4
1988–89	17.5	30.2	419.2	466.9	60.8
1989–90	17.0	30.9	418.7	466.6	60.7

(a) Excludes pastures and grasses harvested for hay and seed which have been included in 'sown pastures and grasses'. (b) Used for grazing, lying idle, fallow, etc.
Source: Summary of Crops, Australia (7330.0).

CROPS

The following tables show the area of crops in the States and Territories of Australia since 1870–71, and a summary of the area, production and gross value of the principal crops in Australia in recent years.

AREA OF CROPS(a)
('000 hectares)

Year	NSW	Vic.	Qld	SA	WA	Tas	NT	ACT	Aust
1870–71	156	280	21	325	22	64	—	—	868
1880–81	245	627	46	846	26	57	—	—	1,846
1890–91	345	822	91	847	28	64	—	—	2,197
1900–01	990	1,260	185	959	81	91	—	—	3,567
1910–11	1,370	1,599	270	1,112	346	116	—	—	4,813
1920–21	1,807	1,817	316	1,308	730	120	—	1	6,099
1930–31	2,756	2,718	463	2,196	1,939	108	1	2	10,184
1940–41	2,580	1,808	702	1,722	1,630	103	—	2	8,546
1949–50	2,295	1,881	832	1,518	1,780	114	—	4	8,424
1954–55	2,183	1,904	1,049	1,711	2,069	122	—	2	9,040
1959–60	2,888	1,949	1,184	1,780	2,628	130	1	3	10,564
1964–65	4,182	2,621	1,605	2,414	3,037	163	2	4	14,028
1969–70	4,999	2,212	2,208	2,290	3,912	98	6	2	15,728
1971–72	4,186	1,925	2,017	2,278	3,751	67	7	1	14,231
1972–73	4,329	1,943	1,963	2,122	3,814	80	12	1	14,265
1973–74	4,628	1,981	1,786	2,451	4,133	74	6	1	15,060
1974–75	4,089	1,772	1,898	2,257	3,754	67	7	1	13,845
1975–76	4,285	1,851	2,010	2,116	4,208	60	8	1	14,539

For footnotes *see* end of table.

AREA OF CROPS(a) — *continued*

('000 hectares)

Year	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Aust.*
1976–77	4,520	1,943	2,026	2,036	4,417	65	2	1	15,010
1977–78	4,984	2,163	2,107	2,564	4,910	70	1	1	16,800
1978–79	5,020	2,209	2,307	2,827	4,993	80	2	1	17,438
1979–80	5,243	2,243	2,334	2,771	5,281	79	2	1	17,954
1980–81	5,208	2,180	2,481	2,772	5,547	84	1	1	18,273
1981–82	5,744	2,184	2,765	2,865	5,963	90	2	1	19,613
1982–83	5,200	2,234	2,648	2,856	6,380	98	3	1	19,420
1983–84	6,566	2,655	2,998	3,108	6,526	101	5	1	21,961
1984–85	5,789	2,569	3,047	2,902	6,723	99	6	1	21,136
1985–86	5,990	2,528	3,231	3,039	5,970	88	7	1	20,853
1986–87	5,325	2,317	3,036	3,066	5,930	78	12	—	19,764
1987–88	4,908	2,159	2,870	2,990	5,334	84	13	1	18,359
1988–89	4,560	1,990	2,842	2,961	5,082	82	11	1	17,527
1989–90	4,077	1,989	2,580	3,042	5,174	83	9	1	16,953

(a) The classification of crops was revised in 1971–72 and adjustments made to statistics back to 1967–68. After 1966–67 lucerne for green feed, hay and seed, and pasture cut for hay and harvested for seed or green feed are excluded.

NOTE: From 1970–71 to 1980–81 figures related to area 'used for' crops, i.e., an area used for more than one purpose during the year was counted only once. From 1981–82, an area double cropped has been counted separately each time used.

Source: Summary of Crops, Australia (7330.0).

CROPS: AREA, PRODUCTION AND GROSS VALUE

	1988–89			*1989–1990*			*1990–91p*		
	Area ('000 ha)	*Production ('000 tonnes)*	*Gross value ($m)*	*Area ('000 ha)*	*Production ('000 tonnes)*	*Gross value ($m)*	*Area ('000 ha)*	*Production ('000 tonnes)*	*Gross value ($m)*
Cereals for grain									
Barley	2,190	3,242	558	2,310	4,044	709	2,510	4,054	569
Grain sorghum	625	1,244	188	380	946	136	401	n.a.	121
Maize	52	217	34	52	219	39	52	n.a.	33
Oats	1,309	1,838	233	1,089	1,640	178	1,051	1,501	148
Rice	97	748	147	105	846	141	88	730	139
Wheat	8,827	13,935	2,950	9,004	14,214	2,775	9,236	13,053	1,950
Legumes for grain	1,473	1,444	368	1,294	1,160	295	7,222	1,061	284
Crops for hay									
Oats	220	749	77	206	720	79	251	836	77
Wheat	71	198	19	57	159	17	n.a.	n.a.	n.a.
Crops for green feed, silage									
Barley	84	n.a.	n.a.	85	n.a.	n.a	n.a.	n.a.	n.a
Forage sorghum	182			147			n.a.		
Oats	684			633			n.a.		
Wheat	35			32			n.a.		
Sugar cane cut for crushing	314	27,146	744	322	26,940	874	328	24,596	699
Tobacco	5	11	66	5	12	73	5	14	76
Cotton	194	812	537	240	792	640	251	n.a.	821
Peanuts (in shell)	22	25	25	18	18	18	18	n.a.	24
Soybean	71	130	51	49	77	29	42	n.a.	19
Rapeseed	43	58	21	50	78	24	67	92	28
Sunflower	185	172	55	66	73	25	155	n.a.	39
Fruit (excl. grapes)	115	—	952	122	—	1,022	115	—	1,023
Fruit									
Orchard	96	—	727	99	—	754	91	n.a.	714
Oranges	n.a.	399	177	n.a.	487	176	n.a.	446	162
Apples	20	323	236	19	319	212	n.a.	n.a.	487
Pears	n.a.	142	64	n.a.	164	79	n.a.	n.a.	76
Peaches	n.a.	52	42	n.a.	58	51	n.a.	55	48
Bananas	9	196	135	9	180	181	9	n.a.	220
Pineapples	7	154	43	7	142	41	7	n.a.	37
Grapes	58	859	427	59	824	392	60	854	428
Vegetables	119	—	1,165	126	—	1,328	146	n.a.	1,259
Potatoes	38	1,048	319	41	1,178	393	37	n.a.	337
Total all crops (excluding pastures and grasses)	17,527	—	9,158	16,953	—	9,381	17,267	—	8,368

Source: Summary of Crops, Australia (7330.0); Value of Agricultural Commodities Produced, Australia (7503.0); and Viticulture, Australia (7310.0).

The characteristics of the main crops are outlined below.

Cereal grains

In Australia, cereals are conveniently divided into autumn–winter–spring growing ('winter' cereals) and spring–summer–autumn growing ('summer' cereals). Winter cereals such as wheat, oats, barley and rye are usually grown in rotation with some form of pasture such as grass, subterranean clover, medics or lucerne. In recent years, alternative winter crops such as rapeseed, field peas and lupins have been introduced to cereal rotation in areas where they had not previously been grown. Rice, maize, sorghum and the millets are summer cereals with the latter two being grown in association with winter cereals in some areas. In northern Queensland and Western Australia there are two rice growing seasons.

Wheat

Wheat is Australia's most important crop. It is produced in all States but primarily on the mainland in a narrow crescent known as the wheat-belt. Inland of the Great Dividing Range, the wheat-belt stretches in a curve from central Queensland through New South Wales, Victoria and southern South Australia. In Western Australia, the wheat-belt continues around the south-west of the State and some way north up the western side of the continent.

WHEAT: AREA, PRODUCTION AND RECEIVALS

	Area(a)		*Production(a)*		*Australian Wheat Board receivals ('000 tonnes)*
Season	*For grain ('000 ha)*	*All purposes ('000 ha)*	*Grain ('000 tonnes)*	*Gross value ($m)*	
1984–85	12,078	12,150	18,666	3,202.9	17,544
1985–86	11,682	11,766	15,999	2,693.7	15,085
1986–87	11,135	11,274	16,119	2,410.3	15,288
1987–88	9,005	9,141	12,287	2,015.7	10,740
1988–89	8,827	8,932	13,935	2,975.9	12,954
1989–90	9,004	9,093	14,214	2,792.0	13,057
1990–91p	9,236	n.a.	13,053	1,960.6	n.y.a.

(a) Area and production data relate to the year ending 31 March.
Source: Summary of Crops, Australia (7330.0).

WHEAT FOR GRAIN: AREA AND PRODUCTION

Season	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*Aust.*
			AREA ('000 hectares)				
1985–86	3,663	1,508	973	1,443	4,148	2	11,682
1986–87	3,099	1,364	795	1,616	4,260	2	11,135
1987–88	2,464	1,026	646	1,556	3,312	1	9,005
1988–89	2,309	931	768	1,520	3,297	1	8,827
1989–90	2,123	952	894	1,557	3,476	1	9,004
1990–91p	2,182	867	1,113	1,462	3,611	1	9,236
			PRODUCTION ('000 tonnes)				
1985–86	5,898	2,316	1,686	1,781	4,313	4	15,999
1986–87	4,855	2,795	833	2,255	5,377	5	16,119
1987–88	3,997	1,882	718	1,803	3,882	4	12,287
1988–89	4,105	1,691	1,550	1,361	5,225	2	13,935
1989–90	3,423	1,961	1,420	2,607	4,800	3	14,214
1990–91p	2,108	1,431	2,078	2,030	5,414	2	13,063

Source: Summary of Crops, Australia (7330.0).

Oats

Oats are traditionally a cereal of moist temperate regions. However, improved varieties and management practices have enabled oats to be grown over a wide range of soil and climatic conditions. They have a high feed value and produce a greater bulk of growth than other winter cereals; they need less cultivation and respond well to superphosphate and nitrogen. Oats have two main uses: as a grain crop, or as a fodder crop, (following sowing or fallow or rough sowing into stubble or clover pastures). Fodder crops can either be grazed and then harvested for grain after removal of livestock or else mown and baled or cut for chaff.

OATS FOR GRAIN: AREA AND PRODUCTION

Season	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*Aust.*
			AREA ('000 hectares)				
1985–86	429	212	21	108	288	10	1,068
1986–87	482	215	20	113	302	8	1,140
1987–88	526	216	19	132	373	10	1,275
1988–89	548	189	18	156	389	10	1,309
1989–90	365	189	15	172	340	8	1,089
1990–91p	387	168	27	138	322	9	1,051
			PRODUCTION ('000 tonnes)				
1985–86	538	300	26	110	338	17	1,330
1986–87	635	356	19	149	414	11	1,584
1987–88	707	325	14	135	502	16	1,698
1988–89	780	276	15	131	618	18	1,838
1989–90	504	330	14	250	529	13	1,640
1990–91p	525	287	31	146	494	18	1,501

Source: Summary of Crops, Australia (7330.0).

Barley

This cereal contains two main groups of varieties, 2-row and 6-row. The former is generally, but not exclusively, preferred for malting purposes. Barley is grown principally as a grain crop although in some areas it is used as a fodder crop for grazing, with grain being subsequently harvested if conditions are suitable. It is often grown as a rotation crop with wheat, oats and pasture. When sown for fodder, sowing may take place either early or late in the season, as it has a short growing period. It may therefore provide grazing or fodder supplies when other sources are not available. Barley grain may be crushed to meal for stock or sold for malting.

BARLEY FOR GRAIN: AREA AND PRODUCTION

Season	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*Aust.*
			AREA ('000 hectares)				
1985–86	546	389	343	1,169	826	12	3,284
1986–87	408	265	168	955	468	8	2,274
1987–88	465	366	169	876	461	8	2,346
1988–89	413	350	200	837	383	8	2,190
1989–90	413	389	179	900	421	8	2,310
1990–91p	447	426	187	947	494	9	2,510
			PRODUCTION ('000 tonnes)				
1985–86	821	476	810	1,709	1,024	28	4,868
1986–87	614	444	276	1,592	601	21	3,548
1987–88	744	529	244	1,261	617	22	3,417
1988–89	712	545	374	1,036	552	22	3,242
1989–90	656	696	321	1,724	628	19	4,044
1990–91p	787	606	384	1,514	738	25	4,054

Source: Summary of Crops, Australia (7330.0).

Grain sorghum

The sorghums are summer growing crops which are used in three ways: grain sorghum for grain; sweet or fodder sorghum, sudan grass and, more recently, columbus grass for silage, green feed and grazing; and broom millet for brooms and brushware.

Grain sorghum has been grown extensively only in the last two decades. Rapid increases in production have resulted in a substantial increase in exports over this period. The grain is used primarily as stockfeed and is an important source for supplementing other coarse grains for this purpose.

GRAIN SORGHUM FOR GRAIN: AREA AND PRODUCTION

Season	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*Aust.(a)*
			AREA ('000 hectares)				
1985–86	160	1	569	—	—	—	734
1986–87	188	—	625	—	—	—	818
1987–88	175	—	565	—	—	—	745
1988–89	152	—	468	—	—	—	625
1989–90	138	—	238	—	—	—	380
1990–91p	91	—	306	—	1	—	401
			PRODUCTION ('000 tonnes)				
1985–86	299	4	1,109	—	1	—	1,416
1986–87	392	1	1,019	—	1	—	1,419
1987–88	412	1	1,213	—	—	—	1,633
1988–89	301	1	934	—	1	—	1,244
1989–90	359	1	578	—	1	—	946
1990–91p	n.y.a.	n.y.a.	n.y.a.	n.y.a.	n.y.a.	n.y.a.	n.y.a.

(a) Includes States with less than 500 hectares.

Source: Summary of Crops, Australia (7330.0).

Maize

Like sorghum, maize is a summer cereal demanding specific soil and climatic conditions. Maize for grain is almost entirely confined to the south-east regions and the Atherton Tablelands of Queensland; and the north coast, northern slopes and tablelands and the Murrumbidgee Irrigation Area in New South Wales. Small amounts are grown in all States, except South Australia, for green feed and silage, particularly in association with the dairy industry.

MAIZE FOR GRAIN: AREA AND PRODUCTION

Season	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*Aust.*
			AREA ('000 hectares)				
1985–86	18	1	63	—	1	—	84
1986–87	16	1	38	—	1	—	58
1987–88	15	1	37	—	1	—	56
1988–89	14	—	36	—	1	—	52
1989–90	17	—	34	—	1	—	52
1990–91p	18	—	33	—	1	—	52
			PRODUCTION ('000 tonnes)				
1985–86	90	5	176	1	5	—	278
1986–87	77	3	118	1	6	—	206
1987–88	72	6	124	—	5	—	208
1988–89	78	1	132	—	4	—	217
1989–90	98	1	115	—	5	—	219
1990–91p	n.y.a.	n.y.a.	n.y.a.	n.y.a.	n.y.a.	n.y.a.	n.y.a.

Source: Summary of Crops, Australia (7330.0).

Rice

In Australia, rice was first grown commercially in 1924–25 in the Murrumbidgee Irrigation Area, one of three irrigation areas in southern New South Wales where rice is now produced. About 95 per cent of Australia's rice is grown in New South Wales. The remainder is grown in the Burdekin River basin and at Mareeba in northern Queensland.

RICE FOR GRAIN: AREA AND PRODUCTION

Season	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*Aust.*
			AREA ('000 hectares)				
1985–86	103	—	3	—	—	—	107
1986–87	92	—	4	—	—	—	96
1987–88	102	—	4	—	—	—	106
1988–89	94	—	3	—	—	—	97
1989–90	100	—	5	—	—	—	105
1990–91p	84	—	4	—	—	—	88
			PRODUCTION ('000 tonnes)				
1985–86	702	—	14	—	—	—	716
1986–87	589	—	19	—	—	—	608
1987–88	721	—	19	—	—	—	740
1988–89	730	—	18	—	—	—	748
1989–90	816	—	30	—	—	—	846
1990–91p	711	—	15	—	—	—	726

Source: Summary of Crops, Australia (7330.0).

Vegetables

The area sown to vegetables reached a peak of over 200,000 hectares in 1945. It remained static at around 109,000 hectares from the mid-seventies to the mid-eighties but has been increasing steadily since. Yields from most vegetable crops have increased due to variety breeding for increased yields, greater use of irrigation and better control of disease and insect pests.

VEGETABLES FOR HUMAN CONSUMPTION: AREA UNDER PRODUCTION

Year	*French and runner beans*	*Cabbages*	*Carrots*	*Cauliflowers*	*Onions*	*Green peas*	*Potatoes*	*Tomatoes*	*Total vegetables*
				AREA ('000 hectares)					
1985–86	5.9	2.3	4.3	3.6	4.5	11.2	36.1	9.5	110.7
1986–87	5.9	2.9	4.6	3.7	4.3	11.7	36.7	8.6	111.3
1987–88	6.0	2.8	4.6	3.4	5.0	11.2	39.8	8.9	116.7
1988–89	6.9	2.2	4.8	3.5	5.3	11.9	37.6	9.1	119.0
1989–90	7.3	2.3	4.8	3.7	5.1	13.3	40.6	9.6	125.8
1990–91p	n.y.a.	n.y.a.	n.y.a.	n.y.a.	5.1	n.y.a.	37.0	9.0	146.0

Source: Summary of Crops, Australia (7330.0).

PRODUCTION OF VEGETABLES FOR HUMAN CONSUMPTION

						Green peas			
	French and runner beans	Cabbages	Carrots	Cauliflowers	Onions	Processing (shelled weight)	Sold in pod (pod weight)	Potatoes	Tomatoes
				PRODUCTION ('000 tonnes)					
1985–86	31.3	69.1	127.6	103.8	159.7	39.7	1.5	964.9	252.6
1986–87	29.4	82.9	146.0	91.6	164.7	33.4	1.2	1,015.2	266.0
1987–88	32.7	80.1	144.0	112.2	181.7	43.0	1.2	1,081.5	282.6
1988–89	35.5	87.8	148.7	79.6	196.3	46.0	1.1	1,048.0	318.6
1989–90	38.4	77.8	154.9	88.6	192.5	49.8	1.0	1,178.0	322.1
1990–91p	n.y.a.	n.y.a.	n.y.a.	n.y.a.	209.0	n.y.a.	n.y.a.	n.y.a.	400.0

Source: Summary of Crops, Australia (7330.0).

Fruit

A wide variety of fruit is grown in Australia ranging from pineapples, mangoes and papaws in the tropics to pome, stone and berry fruits in the temperate regions.

In recent years there has been rapid expansion in the cultivation of many relatively new fruit crops in Australia and there is considerable scope for continued growth in the future.

SELECTED FRUIT STATISTICS

	Orchard fruit number of trees ('000)				Tropical and other fruits area (ha)			Total area of fruit (ha)
Year	Apples	Oranges	Pears	Peaches	Bananas	Pineapples	Other fruit	
1985–86	6,397	6,777	1,592	1,793	9,640	6,325	2,432	112,655
1986–87	6,350	6,897	1,552	1,797	9,391	3,762	1,245	107,492
1987–88	6,555	6,873	1,779	1,867	9,195	6,269	2,024	166,100
1988–89	6,810	7,122	2,028	2,004	9,319	6,660	1,239	119,756
1989–90	7,023	7,187	2,201	2,035	9,092	6,461	1,427	121,785
1990–91p	6,781	7,235	2,065	2,135	9,110	6,554	1,796	n.y.a.

					PRODUCTION ('000 tonnes)				
	Apples	Apricots	Bananas	Cherries	Oranges	Peaches	Pears	Pineapples	Plums and prunes
1985–86	292.1	29.6	134.4	3.9	496.2	61.4	142.9	131.6	21.7
1986–87	325.0	27.0	157.7	4.0	504.0	61.1	145.0	142.3	22.0
1987–88	300.0	28.0	160.1	5.0	479.0	66.0	162.0	146.5	18.0
1988–89	323.0	27.9	195.8	4.0	399.2	51.9	142.1	154.4	19.9
1989–90	319.4	29.7	180.3	4.7	487.2	58.0	164.2	141.6	19.9
1990–91p	n.y.a	24.1	n.y.a.	5.1	446.6	56.9	n.y.a.	n.y.a.	15.1
					GROSS VALUE OF PRODUCTION ($ million)				
1985–86	139.0	24.5	101.7	9.5	132.5	29.3	63.7	32.6	23.5
1986–87	197.3	21.3	125.1	10.5	120.4	35.8	74.9	40.2	22.7
1987–88	183.1	30.4	118.8	14.2	143.9	44.9	77.0	34.0	21.8
1988–89	235.6	27.8	134.8	14.0	177.0	42.4	63.9	43.2	26.7
1989–90	211.6	28.0	181.3	17.4	175.9	50.9	79.3	40.7	24.3
1990–91p	208.1	n.y.a.	214.3	n.y.a.	n.y.a.	48.0	70.4	49.9	n.y.a.

Source: Summary of Crops, Australia (7330.0).

Grapes

Grapes are a temperate crop which require warm to hot summer conditions for ripening and predominantly winter rainfall. Freedom from late spring frosts is essential. They are grown for wine-making, drying and, to a lesser extent, for table use. Some of the better known wine producing areas are the Barossa, Clare, Riverland, Southern Districts and Coonawarra (South Australia); North–Eastern Victoria and Great Western (Victoria); Hunter and Riverina (New South Wales); Sunraysia (New South Wales and Victoria); Swan Valley and Margaret River (Western Australia).

VITICULTURAL STATISTICS: AREA, PRODUCTION AND VALUE

	Area		*Production: grapes used for*		*Total(a)*	
Year	*Bearing ('000 ha)*	*Total ('000 ha)*	*Winemaking ('000 tonnes fresh weight)*	*Drying ('000 tonnes fresh weight)*	*Quantity ('000 tonnes fresh weight)*	*Gross value ($m)*
1985–86	60	64	510	359	907	270.0
1986–87	54	57	477	262	783	251.5
1987–88	54	57	460	293	799	345.6
1988–89	54	57	563	248	859	427.3
1989–90	54	59	530	249	824	392.0
1990–91p	55	59	490	321	858	n.y.a.

(a) Includes grapes used for table and other purposes.
Source: Summary of Crops, Australia (7330.0).

VITICULTURE: AREA AND PRODUCTION, 1990 SEASON(a)

	Area of vines at harvest			*Production of grapes used for*			
Variety	*Bearing*	*Not yet bearing*	*All vines*	*Wine-making*	*Drying*	*Other*	*Total*
		— hectares —			— tonnes (fresh weight) —		
Red grapes							
Cabernet Sauvignon	3,684	934	4,618	35,736	—	—	35,736
Currant (incl. Carina)	1,210	58	1,267	270	18,097	2	18,369
Grenache	2,129	30	2,158	29,890	—	—	29,890
Mataro	620	2	623	9,838	—	—	9,838
Pinot Noir	801	328	1,130	8,408	—	—	8,408
Shiraz	4,711	399	5,110	58,618	—	—	58,618
Other red grapes	3,407	795	4,202	16,566	239	13,440	30,246
Total red grapes	*16,562*	*2,546*	*19,108*	*159,326*	*18,336*	*13,442*	*191,105*
White grapes							
Chardonnay	3,123	1,198	4,321	34,735	—	2	34,737
Doradillo	863	—	863	21,586	4	—	21,589
Muscat Blanc	404	4	408	5,749	—	9	5,758
Muscat Gordo Blanco	3,703	48	3,751	67,148	10,539	177	77,864
Palomino and Pedro Ximenes	1,215	7	1,222	20,436	—	2	20,438
Rhine Riesling	3,615	67	3,682	41,457	—	—	41,457
Semillon	2,526	262	2,788	39,537	—	—	39,537
Sultana	15,254	522	15,776	55,723	214,394	22,123	292,240
Waltham Cross	959	10	970	2,609	6,537	3,221	12,368
Other white grapes	5,749	604	6,352	83,263	105	5,331	88,699
Total white grapes	*37,411*	*2,722*	*40,133*	*372,243*	*231,579*	*30,865*	*634,687*
Total grapes	**53,973**	**5,268**	**59,241**	**531,569**	**249,916**	**44,307**	**825,792**

(a) Varietal data not collected in Northern Territory and the Australian Capital Territory.
Source: Viticulture, Australia (7310.0).

Selected other crops

Oilseeds

The oilseeds industry is a relatively young industry by Australian agricultural standards. The specialist oilseed crops grown in Australia are sunflower, soybeans, rapeseed, safflower and linseed. Sunflower and soybeans are summer grown while the others are winter crops. In Australia, oilseeds are crushed for their oil, which is used for both edible and industrial purposes and protein meals for livestock feeds.

Oilseed crops are grown in all States but the largest producing regions are the grain growing areas of the eastern States.

OILSEEDS: AREA AND PRODUCTION

Season	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*Aust.*
AREA ('000 hectares)							
1985–86	207	48	203	16	4	—	479
1986–87	150	39	145	9	6	—	349
1987–88	109	50	175	10	4	—	348
1988–89	103	46	189	8	3	—	349
1989–90	84	39	69	7	1	—	200
1990–91p	125	23	130	5	2	—	285
PRODUCTION ('000 tonnes)							
1985–86	207	51	162	22	3	—	447
1986–87	157	40	116	12	3	—	329
1987–88	116	48	201	12	4	—	384
1988–89	138	46	195	11	3	—	394
1989–90	119	38	84	7	2	—	251
1990–91p	n.y.a.	n.y.a.	n.y.a.	n.y.a.	n.y.a.	n.y.a.	n.y.a.

Source: Summary of Crops, Australia (7330.0).

Cotton

Cotton is grown primarily for its fibre (lint). When the cotton is matured, seed cotton is taken to a gin where it is separated (ginned) into lint, seed and thrash. Lint is used for yarn while seed is further processed at an oil mill. There the short fibres (linters) remaining on the seed after ginning are removed. They are too short to make into cloth but are used for wadding, upholstery and paper. The seeds are then separated into kernels and hulls. Hulls are used for stock feed and as fertiliser, while kernels are crushed to extract oil. The remaining cake is ground into meal which is protein roughage used as stock feed.

COTTON: AREA, PRODUCTION AND EXPORTS

	Seed cotton(a)					*Raw cotton export*	
Year	*Area ('000 ha)*	*Quantity ('000 tonnes)*	*Gross value ($m)*	*Cotton-seed(b) ('000 tonnes)*	*Lint ('000 tonnes)*	*Quantity ('000 tonnes)*	*Value f.o.b. ($m)*
1985–86	177	685	324.9	366	259	241	378.4
1986–87	156	612	372.1	418	214	251	344.7
1987–88	245	762	421.6	435	281	176	353.0
1988–89	194	769	536.9	449	286	286	460.0
1989–90	240	792	639.5	493	305	291	540.0
1990–91p	251	n.y.a.	n.y.a.	n.y.a.	n.y.a.	n.y.a.	n.y.a.

(a) Before ginning. (b) Estimated by the Australian Bureau of Agricultural and Resource Economics.
Source: Summary of Crops, Australia (7330.0).

Sugar

Sugar cane is grown commercially in Australia along the east coast over a distance of some 2,100 kilometres in a number of discontinuous areas from Maclean in northern New South Wales to Mossman in Queensland. The geographical spread contributes to the overall reliability of the sugar cane crop and to Australia's record as a reliable sugar supplier. Approximately 95 per cent of production occurs in Queensland, with some 75 per cent of the crop grown north of the Tropic of Capricorn in areas where rainfall is reliable and the warm, moist and sunny conditions are ideal for the growing of sugar cane. Farm sizes range between 20 and 70 hectares.

SUGAR CANE: AREA, PRODUCTION AND YIELD

	New South Wales					*Queensland*				
	Sugar cane cut for crushing			*Raw sugar(a)*		*Sugar cane cut for crushing*			*Raw sugar(a)*	
Year	*Area harvested ('000 ha)*	*Production (tonnes)*	*Yield ('000 t/ha)*	*Quantity (tonnes)*	*Yield ('000 t/ha)*	*Area harvested ('000 ha)*	*Production (tonnes)*	*Yield ('000 t/ha)*	*Quantity (tonnes)*	*Yield ('000 t/ha)*
1985–86	15	1,398	91.1	170	11.1	288	23,004	79.8	3,209	11.1
1986–87	14	1,276	93.2	168	7.0	287	23,466	81.8	3,202	11.2
1987–88	16	1,632	60.4	195	7.2	291	23,200	64.4	3,483	9.7
1988–89	15	1,560	104.0	196	13.1	302	25,586	85.9	3,483	11.5
1989–90	15	1,388	92.5	179	11.9	307	25,552	83.2	3,618	11.8
1990–91p	14	1,108	n.y.a.	n.y.a.	n.y.a.	314	23,488	n.y.a.	n.y.a.	n.y.a.

(a) In terms of 94 net titre.
Source: Summary of Crops, Australia (7330.0).

Fodder crops

Considerable areas of Australia are devoted to fodder crops which are utilised either for grazing (as green feed), or harvested and conserved as hay, ensilage, etc. This development of fodder conservation as a means of supplementing pasture and natural sources of stockfeed is the result of the seasonal and comparatively unreliable nature of rainfall in Australian agricultural areas.

FODDER CROPS: AREA AND PRODUCTION

	Hay(a)			*Green feed or silage(b)*	
		Production			
Year	*Area ('000 ha)*	*Quantity ('000 tonnes)*	*Gross value ($m)*	*Area ('000 ha)*	*Silage made ('000 tonnes)*
1985–86	252	773	64.5	1,005	603
1986–87	306	942	72.9	1,190	679
1987–88	344	1,003	85.8	1,313	878
1988–89	323	1080	106.8	1,152	825
1989–90	297	964	104.0	1,053	723
1990–91p	330	1,055	107.1	799	n.y.a.

(a) Principally oaten and wheaten hay. (b) Principally from oats, barley, wheat and forage sorghum.
Source: Summary of Crops, Australia (7330.0).

FARM STOCKS OF CEREAL GRAINS, HAY AND SILAGE
('000 tonnes)

	Cereal grains				
At 31 March	*Barley*	*Oats*	*Wheat*	*Hay*	*Silage*
1985	684	1,479	910	5,872	697
1986	863	1,381	1,176	5,179	835
1987	729	1,406	1,045	5,783	817
1988	693	1,366	962	4,972	757
1989	702	1,550	1,028	5,550	975
1990	655	1,610	954	5,687	991

Source: Summary of Crops, Australia (7330.0).

LIVESTOCK

The numbers of each of the principal kinds of livestock in Australia at ten-yearly intervals from 1861 to 1971, and then from 1981 on by single years, are given in the following table.

LIVESTOCK
('000)

Year	*Cattle*	*Sheep*	*Pigs*	*Year*	*Cattle*	*Sheep*	*Pigs*
1861	3,958	20,135	351	1971	24,373	177,792	2,590
1871	4,276	41,594	543	1981	25,168	134,407	2,430
1881	7,527	62,184	816	1982	24,553	137,976	2,373
1891	10,300	97,881	891	1983	22,478	133,237	2,490
1901	8,640	70,603	950	1984	22,161	139,242	2,527
1911	11,745	98,066	1,026	1985	22,784	149,747	2,512
1921	13,500	81,796	674	1986	21,820	146,776	2,512
1931	11,721	110,568	1,072	1987	21,915	149,157	2,611
1941	13,256	122,694	1,797	1988	21,851	152,443	2,706
1951	15,229	115,596	1,134	1989	22,434	161,603	2,671
1961	17,332	152,579	1,615	1990	23,191	170,297	2,648
				1991p	23,347	161,092	2,531

Source: Livestock and Livestock Products, Australia (7221.0).

The years in which the numbers of livestock attained their peaks are as follows: cattle, 1976 (33,434,000); sheep, 1970 (180,080,000); and pigs, 1973 (3,259,000).

Cattle

Cattle-raising is carried out in all States, the main object in certain districts being the production of stock suitable for slaughtering purposes and in others the raising of dairy herds. While dairy cattle are restricted mainly to southern and to coastal districts, beef cattle are more concentrated in Queensland and New South Wales. Cattle numbers in Australia increased slowly during the 1960s and 1970s, despite seasonal changes and heavy slaughterings, to a peak of 33.4 million in 1976. Beef cattle production is often combined with cropping, dairying and sheep. In the northern half of Australia, cattle properties and herd size are very large, pastures are generally unimproved, fodder crops are rare and beef is usually the only product. The industry is more intensive in the south because of the more favourable environment including more improved pasture.

CATTLE BY AGE, SEX AND PURPOSE
('000)

	31 March					
Classification	*1986*	*1987*	*1988*	*1989*	*1990*	*1991p*
Milk cattle						
Bulls used or intended for service	42	37	36	36	33	32
Cows, heifers and heifer calves	2,625	2,561	2,506	2,476	2,461	2,304
House cows and heifers	45	41	38	34	28	n.a.
Total	*2,712*	*2,639*	*2,581*	*2,546*	*2,523*	*2,337*
Meat cattle						
Bulls used or intended for service	512	513	528	551	582	532
Cows and heifers (1 year and over)	9,775	9,795	9,818	10,120	10,577	10,596
Calves under 1 year	4,598	4,738	4,716	4,816	5,106	5,086
Other cattle (1 year and over)	4,223	4,230	4,207	4,402	4,401	4,797
Total	*19,108*	*19,276*	*19,270*	*19,888*	*20,668*	*21,011*
Total all cattle	**21,820**	**21,915**	**21,851**	**22,434**	**23,191**	**23,347**

Source: Livestock and Livestock Products, Australia (7221.0).

CATTLE
('000)

31 March	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*Aust. (incl. ACT)*
1986	4,790	3,383	9,208	854	1,608	509	1,456	21,820
1987	4,868	3,478	9,011	912	1,660	535	1,439	21,915
1988	4,962	3,474	8,825	947	1,705	542	1,385	21,851
1989	5,329	3,509	8,994	943	1,702	560	1,388	22,434
1990	5,506	3,646	9,489	969	1,673	569	1,327	23,191
1991p	5,522	3,408	9,796	997	1,653	580	1,380	23,347

Source: Livestock and Livestock Products, Australia (7221.0).

Sheep

With the exception of a short period in the early 1860s, when the flocks in Victoria outnumbered those of New South Wales, the latter State has occupied the premier position in sheep raising. Western Australia is presently the second largest sheep raising State, followed by Victoria. Sheep numbers reached a peak of 180 million in Australia in 1970. In March 1990, flock numbers reached 170 million. However, poor market prospects for both wool and live sheep exports during 1990 has had a marked impact on flock reduction and numbers declined to 161 million in 1991. This downward trend in numbers is expected to continue through to 1994.

SHEEP AND LAMBS
(millions)

31 March	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*Aust. (incl. NT, ACT)*
1986	51.5	25.7	14.2	17.5	32.9	4.8	146.8
1987	52.2	26.6	14.6	17.2	33.5	5.0	149.2
1988	54.9	27.0	14.4	17.4	34.0	4.7	152.4
1989	59.1	28.1	14.9	17.4	37.1	4.9	161.6
1990	62.1	29.3	16.7	18.4	38.4	5.3	170.3
1991p	59.0	26.1	17.4	17.3	36.4	4.7	161.1

Source: Livestock and Livestock Products, Australia (7221.0).

SHEEP AND LAMBS
(millions)

31 March	Sheep (1 year and over) Rams	Breeding ewes	Other ewes	Wethers	Lambs and hoggets (under 1 year)	Total sheep and lambs
1986	1.8	72.1	6.6	38.7	36.3	155.6
1987	1.7	72.1	4.2	37.5	33.6	149.2
1988	1.7	71.6	4.3	39.1	35.7	152.4
1989	1.8	74.8	4.7	43.7	36.6	161.6
1990	1.8	74.8	6.0	47.7	40.1	170.3
1991p	1.7	65.2	10.8	47.7	35.7	161.1

Source: Livestock and Livestock Products, Australia (7221.0).

Pigs

PIGS
('000)

31 March	NSW	Vic.	Qld	SA	WA	Tas.	Aust. (incl. NT, ACT)
1986	782	427	574	408	275	42	2,512
1987	830	432	579	422	295	46	2,611
1988	853	437	617	441	307	48	2,706
1989	855	423	611	450	285	45	2,671
1990	865	428	600	437	272	42	2,648
1991p	817	388	607	408	271	37	2,531

Source: Livestock and Livestock Products, Australia (7221.0).

Poultry

POULTRY
('000)

31 March	Chickens			Other poultry			Total all poultry
	Hens and pullets for egg production	Meat strain chickens (broilers)	Total chickens(a)	Ducks	Turkeys	Other poultry	
1986	13,646	35,497	51,565	282	579	365	52,791
1987	13,506	39,187	55,579	350	1,249	430	57,608
1988	13,463	47,988	64,201	663	1,585	365	66,813
1989	13,193	39,709	56,149	263	1,125	420	57,957
1990	13,084	43,906	59,956	276	1,240	449	61,920
1991p	12,243	37,517	52,074	278	1,123	429	53,903

(a) Includes breeding stock.
Source: Livestock and Livestock Products, Australia (7221.0).

MEAT PRODUCTION AND SLAUGHTERINGS

The first of the following two tables contains details of slaughterings and meat production from abattoirs, commercial poultry and other slaughtering establishments and includes estimates of animals slaughtered on farms and by country butchers. The data relate only to slaughterings for human consumption and do not include animals condemned or those killed for boiling down.

PRODUCTION OF MEAT(a)
('000 tonnes)

	Carcass weight						Dressed weight(b)(c)	
Year	*Beef*	*Veal*	*Mutton*	*Lamb*	*Pig meat*	*Total meat*	*Total all chickens*	*Poultry(d)*
1985–86	1,344	41	258	320	271	2,234	334	367
1986–87	1,481	40	288	296	283	2,388	344	380
1987–88	1,549	39	293	293	297	2,471	(e)362	401
1988–89	1,459	32	254	290	308	2,343	(e)368	407
1989–90	1,642	35	333	295	317	2,622	(e)385	425
1990–91p	1,693	37	383	290	310	2,714	(e)388	430

(a) Excludes offal. (b) Excludes the Northern Territory and the Australian Capital Territory. (c) Dressed weight of whole birds, pieces and giblets. (d) Includes other fowls, turkeys, ducks and drakes. (e) Excludes Tasmania.

Source: Livestock and Livestock Products, Australia (7221.0).

NUMBERS OF LIVESTOCK AND POULTRY SLAUGHTERED FOR HUMAN CONSUMPTION
(million head)

Year	*Cattle*	*Calves*	*Sheep*	*Lambs*	*Pigs*	*Chickens (a)*	*Other fowls(b) and turkeys*	*Ducks and drakes*
1985–86	6.2	1.2	13.0	19.1	4.5	258.3	11.6	2.3
1986–87	6.8	1.2	14.7	17.7	4.7	269.3	11.2	2.1
1987–88	6.9	1.2	14.9	17.2	4.9	(c)273.6	11.1	2.3
1988–89	6.3	1.0	12.4	16.5	5.0	(c)274.1	10.6	2.2
1989–90	6.9	1.0	16.1	16.8	4.9	(c)290.0	10.8	2.2
1990–91p	7.2	1.1	18.3	16.6	4.8	(c)284.0	10.0	2.3

(a) Comprises broilers, fryers and roasters. (b) Comprises hens, roosters, etc. (c) Excludes Tasmania.

Source: Livestock and Livestock Products, Australia (7221.0).

GROSS VALUE OF LIVESTOCK SLAUGHTERINGS AND OTHER DISPOSALS(a)
($ million)

Year	*Cattle and calves*	*Sheep and lambs*	*Pigs*	*Poultry*	*Total*
1985–86	2,367.3	531.6	438.3	559.1	3,896.4
1986–87	2,824.7	721.2	468.5	601.7	4,624.6
1987–88	3,047.9	803.9	536.1	671.2	(b)5,074.3
1988–89	3,189.6	738.3	629.3	730.3	(b)5,302.3
1989–90	3,860.5	585.4	656.0	777.9	(b)5,893.3
1990–91p	3,707.5	335.7	635.0	741.5	(b)5,448.1

(a) Includes adjustment for net exports of live animals. (b) Includes goats.

Source: Value of Agricultural Commodities Produced, Australia (7503.0).

EXPORTS OF FRESH, CHILLED OR FROZEN MEAT(a)
('000 tonnes)

	Beef(b)(c)		*Veal(b)*		*Mutton(b)*		*Lamb*		
	Bone-in	*Bone-out*	*Bone-in*	*Bone-out*	*Bone-in*	*Bone-out*	*Bone-in*	*Bone-out*	*Pork*
1985–86	4.8	466.3	2.2	3.7	38.0	51.8	47.8	2.1	2.8
1986–87	4.6	555.3	2.1	3.5	49.9	57.9	53.7	1.5	3.9
1987–88	7.6	310.2	0.4	2.7	31.5	34.0	36.3	1.3	3.0
1988–89	47.4	493.6	1.0	5.3	32.6	53.7	34.9	2.7	6.6
1989–90	83.0	579.8	1.1	4.6	63.3	55.0	36.4	3.6	6.2
1990–91p	82.7	681.3	1.0	5.4	93.2	72.3	44.0	3.5	5.6

(a) Excludes offal. (b) Factors can be applied to beef, veal, mutton and lamb bone-out figures to derive bone-in carcass weight which, when added to bone-in figures, shows total exports in carcass weight. The factor for beef and veal is 1.5 and that for mutton and lamb 2.0 (Source: Australian Meat and Livestock Corporation). (c) Includes buffalo meat.

Source: Agricultural Statistics, Australian Bureau of Statistics.

Production of sheep meats in Australia is closely associated with the wool industry. Sheep grazing often occurs on mixed farms in conjunction with beef and/or grain enterprises and in some areas producers specialise in lamb production. The supply of sheep meat depends greatly on seasonal conditions, decisions to build up or reduce flock numbers, expectations of wool prices, live sheep exports and the pattern of domestic consumption of meat.

As a consequence of the reduction in flock size in 1990–91 mutton production increased substantially to 383,000 tonnes, 51 per cent higher than production in 1989–90.

Of historical significance to the beef industry in 1988 was the opening of the Japanese and Korean beef markets which has provided substantial opportunities to increase beef exports. Exports to Korea reached 81,000 tonnes in 1990–91, 33 per cent higher than the previous season. Liberalisation of the Japanese market occurred in 1991. This involved removal of import quotas in exchange for a percentage of customs value. These tariff rates will be progressively reduced over the next two years. To cater for the type of beef required by the Japanese market, the number of feedlots is expected to increase.

Significant changes have taken place in the pig producing industry in recent years. Capital investment and corporate takeovers have seen the emergence of a few large companies producing 30 per cent of all pigs sold in Australia. These moves on top of the trend to more intensive and efficient production techniques have seen pigmeat production rise steadily since 1982 to reach 310,956 tonnes in 1990–91. In addition, there has been an increase in the slaughter weights of pigs reflecting the demands of the fresh pork trade.

WOOL

Wool production

Wool as shorn from the sheep ('greasy wool') contains an appreciable amount of grease, dirt, vegetable matter and other extraneous material. The exact quantities of these impurities in the fleece vary between differing climatic and pastoral conditions, with seasonal fluctuations and with the breed and condition of the sheep. It is, however, the clean wool fibre that is ultimately consumed by the textile industry and the term 'clean yield' is used to express the net wool fibre content present in greasy wool. Clean yields for Australia have gradually trended upwards; in 1989–90 and 1990–91 the clean yield of the Australian clip was 65.8 and 65.6 per cent, respectively.

SHEARING, WOOL PRODUCTION AND VALUE

			Wool production			
					Total wool	
Year	*Sheep and lambs shorn (million)*	*Average fleece weight (kg)*	*Shorn wool ('000 tonnes)*	*Other wool(a) ('000 tonnes)*	*Quantity ('000 tonnes)*	*Gross value (b) ($m)*
1985–86	173.8	4.39	762.1	67.9	830.0	2,707
1986–87	180.8	4.50	813.7	76.6	890.4	3,334
1987–88	186.3	4.53	843.0	73.4	916.4	5,517
1988–89	196.4	4.58	898.9	60.1	959.0	5,906
1989–90	215.1	4.79	1,030.9	71.1	1,102.0	5,718
1990–91p	216.0	4.69	1,103.2	76.1	1,089.3	4,607

(a) Comprises dead and fellmongered wool, and wool exported on skins. (b) Gross value is based, for shorn wool, upon the average price realised for greasy wool sold at auction and, for skin wools, on prices recorded by fellmongers and skin exporters.

Source: Livestock and Livestock Products, Australia (7221.0).

Wool receivals

The total amounts of taxable wool received by selling brokers and dealers in recent years, excluding wool received by brokers on which tax had already been paid by other dealers (private buyers) or brokers, are shown in the following table.

TAXABLE WOOL RECEIVALS

	Receivals			
Year	*Brokers (NCWSB)*	*Dealers(a)*	*Brokers and dealers*	*Dealers as per cent of total receivals*
	— '000 tonnes —			per cent
1985–86	599.0	167.6	766.4	21.9
1986–87	625.9	188.0	814.0	23.1
1987–88	707.6	134.8	842.4	16.0
1988–89	755.1	136.4	891.5	15.3
1989–90	911.8	138.0	1,050.0	13.1
1990–91p	915.7	93.4	1,009.1	9.3

(a) Includes brokers who are not members of the National Council of Wool Selling Brokers of Australia (NCWSB).
Source: Livestock Products, Australia (7215.0).

Wool marketing arrangements

The auction system reverted to a 'free marketing' system during the 1990–91 season. The Reserve Price Scheme that had operated since 1974 was suspended in February 1991. It had become unworkable due to the massive accumulation of wool in the stockpile and the substantial debt which had been incurred. The stockpile of bales at 8 March 1991 was 4,694,582, and 4,478,130 at 1 November 1991.

From 1 July 1991 the Australian Wool Corporation (AWC) was split into three separate organisations. The Australian Wool Corporation continues in a reduced form and is responsible for wool promotions programs, market regulations, shear training and encouraging efficiency within the sphere of wool handling and transport and market reporting. The Australian Wool Realisation Commission is responsible for the disposal of the wool stockpile, sale of assets and repayment of loans borrowed by the previous AWC to purchase wool. The Wool Research Realisation Commission is responsible for coordinating, developing and funding the wool research and development program.

DAIRYING

Dairying is a major Australian rural industry, ranking fourth behind the wheat, wool and beef industries in terms of value of production. The gross value of dairy production at farm gate prices in 1989–90 was $1,749 million or approximately eight per cent of the gross value of rural production. The gross value of this industry at an ex-factory level is approximately $4,200 million per annum. The industry is also one of Australia's leading rural industries in terms of the proportion of down stream employment and processing it generates. Employment at manufacturing, processing and farm establishments is estimated to be in the vicinity of 50,000 people.

Production

Australian milk production in 1990–91 was 6,402 million litres, an increase of 2.2 per cent compared with the previous year. This largely reflected productivity gains through a combination of farm and herd management techniques. Average production per dairy cow of 4,080 litres in 1990–91 was around a third higher than the levels of the early 1980s.

Domestic market

Average annual per capita milk consumption has stabilised at around 100 litres since the mid-1980s. However, there have been substantial changes in the types of fresh milk consumed, with fat reduced and modified milks taking an increasing share of overall market milk sales.

After growing strongly throughout the late 1980s domestic sales of cheese have stabilised in recent years at slightly above 150,000 tonnes. This is around nine kilograms per capita on an annual basis. This reflects the fact that recent increases in sales of cheddar varieties (particularly lower fat varieties) have been offset by a decline in sales of round eye cheese (such as Swiss, Gouda and Edam). Imports, mainly of specialty cheese brands, account for around 15 per cent of domestic cheese sales.

Consumer preferences for healthier, more natural foods has boosted demand for short shelf life products in recent years. Yogurt sales in 1990–91 reached 64,000 tonnes which is a third higher than those recorded in the mid-1980s.

MILK CATTLE
('000)

31 March	Bulls used or intended for service	Cows and heifers used or intended for production of milk or cream for sale: Cows (in milk and dry)	Heifers	House cows and heifers(a)
1986	43	1,770	885	61
1987	37	1,716	845	41
1988	36	1,676	830	38
1989	36	1,663	813	34
1990	33	1,653	808	28
1991p	32	1,569	735	n.a.

(a) One year and over, kept for the establishment's own milk supply.

Source: Livestock and Livestock Products, Australia (7221.0).

PRODUCTION, UTILISATION AND GROSS VALUE OF WHOLE MILK

Year	Whole milk intake by factories: Market milk sales by factories	Milk used in the manufacture of dairy products	Total intake	Gross value
	— million litres —			$m
1985–86	1,625	4,412	6,038	1,106.7
1986–87	1,655	4,517	6,172	1,257.4
1987–88	1,667	4,462	6,129	1,390.9
1988–89	1,695	4,594	6,289	1,635.1
1989–90	1,696	4,567	6,263	1,749.0
1990–91p	1,736	4,666	6,402	1,836.6

Source: Australian Dairy Corporation.

BEEKEEPING

Statistics up to and including 1985–86 in the following table relate to apiarists with forty or more hives. In 1986–87 the scope of the Agricultural Census was revised to include establishments undertaking agricultural activity having an estimated value of agricultural operations of $20,000 or more.

BEEKEEPING

		Honey produced					Beeswax produced	
		Number of beehives						
Year	*Number of apiarists*	*Productive ('000)*	*Total ('000)*	*Quantity ('000 tonnes)*	*Average production per productive hive (kg)*	*Gross value ($'000)*	*Quantity (tonnes)*	*Gross value ($'000)*
1984–85	2,222	413	553	28.0	67.7	21,257	528	2,077
1985–86	2,250	427	560	26.9	63.0	25,387	490	2,035
1986–87	760	293	364	19.2	65.6	31,050	334	1,988
1987–88	770	285	366	23.0	80.8	32,523	428	1,940
1988–89	836	307	405	22.6	73.8	29,586	530	1,967
1989–90	819	298	405	21.2	71.2	26,113	412	1,546

Source: Agricultural Census, Australian Bureau of Statistics.

APPARENT CONSUMPTION OF FOODSTUFFS

Estimates of the consumption of foodstuffs in Australia are compiled by deducting net exports from the sum of production and imports and allowing for recorded movement in stocks of the respective commodities. The term 'consumption' is used in a specialised sense. The estimates derived are broadly the quantities available for consumption at a particular level of distribution, i.e., ex-market, ex-store or ex-factory depending on the method of marketing and/or processing. Because consumption of foodstuffs is measured, in general, at 'producer' level no allowance is made for wastage before they are consumed. The effect of ignoring wastage is ultimately to overstate consumption to some extent.

The estimates of consumption per capita have been obtained by using the mean resident population for the period.

APPARENT PER CAPITA CONSUMPTION OF FOODSTUFFS
(kg — unless otherwise indicated)

Commodity	*1983–84*	*1984–85*	*1985–86*	*1986–87*	*1987–88*	*1988–89*
Meat and meat products						
Meat (carcass equivalent weight)						
Beef	39.9	40.0	39.3	37.3	38.2	39.5
Veal	2.4	2.1	2.1	1.9	1.8	1.5
Beef and veal	*42.3*	*42.1*	*41.4*	*39.2*	*40.0*	*41.0*
Lamb	16.9	17.1	16.9	15.0	14.9	14.9
Mutton	5.2	6.6	7.1	7.4	7.9	6.8
Pigmeat(a)	16.4	16.4	17.0	16.8	17.6	18.1
Total	*80.9*	*82.2*	*82.3*	*78.3*	*80.4*	*80.8*
Offal and meat, n.e.i.	3.4	2.8	2.7	3.4	3.6	3.0
Total meat and meat products	**84.3**	**85.0**	**85.0**	**81.7**	**84.0**	**83.8**
Poultry						
Poultry (dressed weight)	20.0	21.8	23.0	23.5	24.7	24.7
Milk and milk products						
Market milk (fluid whole litres)	101.6	101.8	102.5	102.9	101.5	100.9
Cheese (natural equivalent weight)	7.7	8.1	7.9	8.1	8.3	8.6

For footnotes *see* end of table.

APPARENT PER CAPITA CONSUMPTION OF FOODSTUFFS — *continued*
(kg — unless otherwise indicated)

Commodity	*1983–84*	*1984–85*	*1985–86*	*1986–87*	*1987–88*	*1988–89*
Oils and fats						
Butter	3.9	3.9	3.8	3.5	3.2	3.1
Margarine						
Table margarine	6.9	6.6	6.9	6.8	6.8	6.8
Other margarine	2.7	2.3	2.1	2.1	2.2	2.2
Total margarine	*9.6*	*8.9*	*9.0*	*8.9*	*9.0*	*9.0*
Beverages						
Tea	1.5	1.4	1.4	1.3	1.2	1.2
Coffee(b)	2.1	2.0	1.6	1.8	2.1	2.0
Aerated and carbonated waters (litres)	63.0	67.3	73.0	73.6	80.2	85.6
Beer (litres)	117.8	114.5	115.5	111.3	110.8	113.1
Wine (litres)	20.4	21.3	21.6	21.0	20.6	19.1
Spirits (litres alcohol)	1.1	1.2	1.3	1.2	1.2	1.3

(a) Includes bacon and ham. (b) Coffee and coffee products in terms of roasted coffee.
Source: Apparent Consumption of Foodstuffs and Nutrients, Australia (4306.0).

AGRICULTURAL IMPROVEMENTS

Irrigation

Irrigation is one of the factors by which agriculture is developed. The variability in stream flow and annual rainfall means that successful irrigation of crops and pastures is dependent on storage. Ground water supplies are used in areas where the quantity is adequate and the quality is suitable. The area of land irrigated (approximately 1.8 million hectares in 1989–90) forms 10 per cent of the total area under crops.

AREA IRRIGATED, YEAR ENDED 31 MARCH 1990(a)
(hectares)

Source of water used	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*Aust.(b)*
Surface water							
From State irrigation schemes	399,204	418,439	89,626	16,886	13,124	3,612	940,917
From other schemes (including private group schemes)							
Direct from rivers, creeks, lakes, etc.	351,876	59,968	65,455	19,626	1,823	16,559	515,699
From farm dams	18,960	25,388	40,856	4,618	6,116	22,267	118,208
Total surface water	*770,040*	*503,795*	*195,937*	*41,131*	*21,064*	*42,439*	*1,574,824*
Underground water supply (e.g., bore, spear, well)	48,514	19,848	115,806	55,953	7,462	1,472	249,804
Town or country reticulated water supply	1,289	2,774	358	1,876	534	176	7,083
Total all water sources	**819,843**	**526,417**	**312,102**	**98,959**	**29,060**	**44,087**	**1,831,813** (c)

(a) Data for irrigation collected every 3 years. (b) Also includes figures for the Australian Capital Territory and Northern Territory. (c) Includes unspecified sources.
Source: Summary of Crops, Australia (7330.0).

Fertilisers

ARTIFICIAL FERTILISERS: AREA AND USAGE

Year	Area fertilised ('000 ha)	Super-phosphate used ('000 tonnes)	Nitrogenous fertilisers used ('000 tonnes)	Other fertilisers used ('000 tonnes)
1984–85	26,407	2,374	421	885
1985–86	25,089	2,160	408	869
1986–87	24,064	1,981	416	830
1987–88	26,651	2,454	431	953
1988–89	27,871	2,523	438	971
1989–90	27,360	2,378	483	1,010

Source: Summary of Crops, Australia (7330.0).

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FOR MORE INFORMATION

The ABS has a far wider range of information on Australia than that contained in the *Year Book*. Information is available in the form of regular publications, electronic data services, special tables and from investigations of published and unpublished data.

For further information contact ABS Information Services at one of the addresses listed on the page facing the Introduction to the *Year Book*.

Chapter Sixteen

Forestry and Fishing

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FORESTRY

Forests are an important sustainable national resource providing a wide range of indispensable products and benefits to the community.

The cover of forest vegetation protects the soil from water and wind erosion, reduces flooding and siltation of water storages and maintains the quality of water. Forests provide habitat for a variety of native animals and plants.

Native and plantation forests contribute substantially to Australia's economic performance especially to employment in rural areas. Forests also represent valuable ecosystems providing a gene pool of great diversity for scientific investigation; a source of honey, oils, gums, resins and medicines; and a resource base for education, tourism and recreation and other purposes. Not all forests are necessarily suitable for all types of uses at the same time, yet careful management will ensure that the forests provide multiple benefits in the long term for the Australian community.

Existing forest estate

Native forest

Native forest is defined as land dominated by trees with an existing or potential mature height of twenty metres or more, including native stands of cypress pine in commercial use regardless of height. The total area of native forest was estimated at 41 million hectares as at 30 June 1990.

Of the 41 million hectares, 6.2 million hectares (15%) are in national parks or on the World Heritage List, 10.9 million hectares (27%) of native forest are on private land, and 30 million hectares (73%) are publicly owned, of which 11.9 million hectares are managed by State forest authorities for various uses, including wood production. A small but increasing area is covered by plantations — 950,000 hectares of mostly radiata pine and 91,000 hectares of hardwood plantations.

NATIVE FOREST AREAS: BY FOREST TYPE AND OWNERSHIP, AT 30 JUNE 1990
('000 hectares)

Item	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Total*
CLASSIFIED BY FOREST TYPE GROUP									
Rainforest	265	16	1,237	—	—	605	38	—	2,161
Eucalypt productivity Class I(a)	1,163	521	205	—	181	459	—	—	2,529
Eucalypt productivity Class II(a)	3,661	4,427	1,290	—	2,503	1,868	—	—	13,749
Eucalypt productivity Class III(a)	7,937	397	3,300	—	—	—	—	51	11,685
Tropical eucalypt and paperbark(b)	—	—	4,078	—	—	—	2,450	—	6,528
Cypress pine	1,696	7	1,686	—	—	—	778	—	4,167
Total	**14,722**	**5,368**	**11,796**	—	**2,684**	**2,932**	**3,266**	**51**	**40,819**
CLASSIFIED BY OWNERSHIP									
Public ownership	9,529	4,763	10,304	—	2,187	2,073	839	51	29,746
Category 1	3,238	3,132	3,182	—	1,792	1,042	—	—	12,386
Category 2	(c)3,800	—	6,412	—	51	461	524	—	11,248
Category 3	(c)2,491	1,631	(d)710	—	344	570	315	51	6,112
Private ownership	5,193	605	1,492	—	497	859	2,427	—	11,073
Total	**14,722**	**5,368**	**11,796**	—	**2,684**	**2,932**	**3,266**	**51**	**40,819**

(a) Eucalypt forests are grouped into productivity classes in descending order of productivity. No specific indexes of productivity have been developed for these classes and there can be some overlap, especially between States, in the relative productivity levels used to assign particular forest types to productivity classes. (b) Includes tropical eucalypt and paperbark species not in commercial use. (c) Water supply reserves previously recorded in Category 2 are now included in Category 3 (220,000 ha). (d) Includes 101,500 ha in World Heritage Area previously in Category 1.
NOTE: Public category 1: Forest land managed for multiple use including wood production. Public 2: Crown land either vacant or occupied under lease on which wood harvesting is carried out under government control but is not reserved and managed for that purpose. Public 3: Land on which wood production is excluded (National Parks etc.).

Source: State and Territory Forest Authorities.

Plantations

Commonwealth Government programs have supported the expansion of Australia's plantation resource base for many years. $15 million has recently been provided through the National Afforestation Program to stimulate investment by the States and the private sector in broadacre planting of hardwood trees, as well as substantial support for applied research into species selection and management techniques. This program has led to the establishment of more than 13,500 hectares of hardwoods over the last three years, a doubling of the establishment rate prior to the program's implementation.

The Commonwealth Government established the National Plantations Advisory Committee to report on strategies designed to foster the development of Australia's plantations resource base and promote commercially viable plantation development. The Committee is a broadly based group including representatives of industry, the conservation movement, unions, the National Farmers Federation and State and local governments.

An increased interest in the establishment of eucalypt plantations is evident, particularly in Tasmania. The following table shows total plantation areas in Australia classified by species.

PLANTATION AREAS CLASSIFIED BY SPECIES, 31 MARCH 1990
(hectares)

Species group	*NSW(a)*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT(b)*	*ACT*	*Aust.*
PUBLIC AND PRIVATE OWNERSHIP									
Coniferous									
Pinus radiata	253,670	205,685	3,241	94,545	55,954	71,786	—	14,052	698,933
Pinus elliottii	5,263	8	(c)82,385	—	(d)289	—	—	—	87,945
Pinus pinaster	—	1,361	—	3,119	28,579	—	—	—	33,059
Pinus caribaea	2,786	3	51,144	—	—	—	2,386	—	56,319
Araucaria species	1,641	—	45,254	—	—	—	—	—	46,895
Other	6,313	2,547	8,120	383	675	334	1,801	514	20,687
Total	*269,673*	*209,604*	*190,144*	*98,047*	*85,497*	*72,120*	*4,187*	*14,566*	*943,838*
Broadleaved									
Eucalptus species	26,331	17,326	1,559	1,381	18,979	25,919	—	—	91,495
Populus species	1,751	222	—	—	—	—	—	—	1,973
Other	38	43	220	—	—	2,700	—	—	3,001
Total	*28,120*	*17,591*	*1,779*	*1,381*	*18,979*	*28,619*	—	—	*96,469*
Total	**297,793**	**227,195**	**191,923**	**99,428**	**104,476**	**100,739**	**4,187**	**14,566**	**1,040,307**

(a) Other conifers on private lands include P. caribaea. An area of 13,101 ha of P. radiata plantation was transferred from private ownership by land purchase by the NSW Forestry Commission. (b) Since 31 March 1986, plantations on aboriginal land have been transferred to private ownership and publicly owned plantations are no longer managed for wood production. (c) Includes APM resource, which is being liquidated. (d) Includes P. caribaea.

Source: State and Territory Forest Authorities.

Timber and timber products

The woodchip export industry uses timber which is unsuitable for sawmilling and not required by the Australian pulp, paper and reconstituted board industries. Before the advent of the woodchip export industry much of this material was left standing in the forest after logging. Considerable quantities of sawmill waste material, which would otherwise be burnt, are also chipped for local pulpwood-using industries and for export. Until recently, at least 95 per cent of woodchips exported from Australia have been eucalypt but increasing quantities of softwood woodchips are now becoming available from pine plantations.

MANUFACTURING ESTABLISHMENTS(a): SUMMARY OF OPERATIONS, 1988–89

1983 ASIC(b) code	*Industry description*	*Establishments at 30 June*	*Employment at 30 June(c)*	*Wages and salaries(d)*	*Turnover*
		no.	'000	$m	$m
2531	Log sawmilling	588	12.1	236.7	1,124.8
2533	Veneers and manufactured boards of wood	74	5.4	136.2	811.9
2537	Hardwood wood chips	9	0.8	27.4	365.6

(a) All manufacturing establishments owned by multi establishment enterprises and single establishment enterprises with four or more persons employed. (b) Australian Standard Industrial Classification. (c) Includes working proprietors. (d) Excludes the drawings of working proprietors.

Source: Manufacturing Industry: Summary of Operations, Australia (8202.0).

PRODUCTION OF TIMBER AND SELECTED TIMBER PRODUCTS(a)

Item		*1987–88*	*1988–89*	*1989–90*	*1990–91*
Sawn Australian grown timber(b)	'000 cu m	3,083	3,225	3,172	n.y.a.
Woodchips (green weight)					
Hardwood (broad leaved)	'000 tonnes	n.a.	n.a.	5,113	4,926
Softwood	'000 tonnes	n.a.	n.a.	718	770
Particle board(c)	'000 cu m	n.a.	n.a.	768	625
Wood pulp					
Mechanical	'000 cu m	414,297	438,775	430,665	428,464
Other	'000 cu m	580,192	597,160	599,711	593,374
Paper and paperboard					
Newsprint	tonne	401,066	401,269	383,657	394,990
Tissue and sanitary papers	tonne	n.p.	n.p.	163,072	137,478
Graphic	tonne	n.a.	n.a.	648,293	n.y.a.
Other paper and paperboard	tonne	n.a.	n.a.	793,116	n.y.a.

(a) Excludes production of small single establishment enterprises with fewer than four persons employed and establishments engaged in non-manufacturing activities but which may carry on, in a minor way, some manufacturing. (b) Source: Australian Bureau of Agricultural and Resource Economics. (c) Particle boards and similar boards of wood or other ligneous material. Excludes laminated.

Source: Manufacturing Production, Australia: Building Materials and Fittings (8361.0) and Manufacturing Production, Australia: Wood and Wood Products (8369.0).

Government administration

Land management is primarily the responsibility of State and Territory Governments. Each State has a forest authority responsible for the management and control of publicly-owned forests, in accordance with the Forestry Acts and Regulations of the State or Territory concerned.

The Department of Primary Industries and Energy is responsible for forest matters at the national level. Its main responsibilities are the development of a national approach to forest management; providing advice to the Commonwealth Minister responsible for forest matters; administration of export licensing responsibilities in relation to unprocessed timber; liaison with State, national and international organisations concerned with forestry; provision of a Secretariat for the Australian Forestry Council; and management of policy and program initiatives.

The Australian Forestry Council (AFC) consists of State, Territory and Commonwealth and New Zealand Ministers responsible for forestry. The Commonwealth Minister for Resources is the chairman of the Council. Since its formation in 1964, the Council has worked to provide leadership and facilitated cooperation at the national level.

Initiatives fostered by the AFC are aimed at promoting the enhanced management of the nation's forest resource in the general interest of the community. Most recently it has made submissions to the Resource Assessment Commission; assisted in the development of the National Forest Inventory and in reviews of natural resource management policies and programs and of the national forest strategy; the development of national principles of forest practices, and preparation of policy papers on the use of herbicides and chemicals in forestry.

Commonwealth government initiatives

The Government has indicated a commitment to securing the future of both the forests and the forests industry and is developing a policy which will bring together:

- the findings of the Resource Assessment Commission (RAC) inquiry and the Ecologically Sustainable Development (ESD) Working Group on Forest Use;
- the outcomes of the National Plantations Advisory Committee and the forest conservation and development process; and
- the other initiatives described below.

The policy will be developed in consultation with the States, industry, unions and community interest groups, including the conservation movement. The key objectives of a National Forests Policy will be to:

- maximise the long-term community benefits from all forest values;
- protect forest ecological and cultural values;
- provide stability in resource access;
- facilitate the highest value added processing of forest products;
- remove any impediments to plantation development as a basis for long-term industry development and expansion;
- achieve ecologically sustainable forest management; and
- encourage increased research and development in the forests sector.

This national policy will establish a strategy which will assist governments to resolve competing claims for the allocation of forest resources among various forest uses.

One billion trees

By the year 2000 the Government hopes to have a billion more trees planted and growing. This will entail:

- a Community Tree Planting Program to plant over 400 million trees; and
- a Natural Regeneration and Direct Seeding Program to establish over 600 million trees in open areas of Australia.

Greening Australia, a non-profit community organisation, administers the National Tree Program.

National forests inventory

In many of the debates over forest management, the information base on forest attributes, such as timber, fauna and flora, has been found to be incomplete. Accordingly the Government has initiated a National Forest Inventory (NFI). During its current three year term, the NFI is establishing a sound working basis for the exchange and sharing of forest resource information nationally, a national forest cover information system and priority regional databases.

A comprehensive information base will lead to more informed discussion and decision making about the future of our forests by identifying and describing forest communities and their current conservation status, and providing the basic wood production resource information to enable the planning of efficient sustainable forest utilisation.

Forest conservation and development process

A Forest Conservation and Development Process was announced by the Prime Minister in the Government's Industry Statement on 12 March 1991 and endorsed by the Special Premiers Conference on 30 July 1991. The objectives of the process are to:

- ensure that the environmental and heritage values of Australia's forests are adequately protected;
- facilitate investment in the manufacture of pulp and paper, and other value added products for domestic use and export by providing legislative resource security for wood processing projects involving an investment of at least $100 million; and
- generate employment.

The legislation will enable the Commonwealth to apply its existing powers once and for all in a joint Commonwealth-State assessment of the environmental, heritage, and economic impacts of each proposed project.

The assessment process will identify in advance of a project proceeding, forest areas which should be reserved for conservation and those which should remain available for multiple uses, including wood production. In this way, forest areas of high conservation value will be identified and protected while industry is provided with secure access to forest resources. This will enable industry to invest in value adding projects with confidence that governments will not act to remove resource from a project at a later date.

Provided the integrated assessment meets the requirements of the respective governments, agreements will then be made between the Commonwealth and the relevant State Government, and between the State Government and the enterprise.

Ecologically Sustainable Development

Ecologically Sustainable Development (ESD) means using, conserving and enhancing the community's resources so that ecological processes, on which life depends, are maintained, and the total quality of life, now and in the future, can be increased.

The ESD Group on Forest Use released its report on a strategy for sustainable forest use in December 1991.

Forests need to be managed to ensure that all forest uses continue to be available for current and future generations. This will involve optimising the environmental, social and economic benefits which forests can provide to the community.

The report addresses a broad range of issues which influence how our forests are used and managed, including:

- how the forests should be managed for all their values;
- how to optimise community benefits from access to our forests; and
- whether new institutional arrangements need to be introduced (e.g., the arrangements for access to Australia's forests).

Resource Assessment Commission Inquiry

The Resource Assessment Commission (RAC) was established by the Commonwealth Government in 1989 to inquire into and to make recommendations to the Government on, contentious land use issues. The RAC has been conducting a public inquiry into the use of Australia's forest and timber resources and was required to present its report to the Government by 30 November 1991.

As well as investigating the full range of forest uses, including timber production and the maintenance of environmental and biological values, the RAC is examining broad issues which affect the way in which forests are used and managed. These include:

- the arrangements governing the administration and management of forests;
- the taxation treatment of forest-based industries;
- the pricing of forest resources; and
- the returns to the community from the use of forests.

Tropical forests

Over half of the world's known plant and animal species are found in rainforests. Rainforests are the traditional home of many tribal peoples and also play an important role in contributing to global climatic stability. However, destruction of tropical forests in developing countries is occurring because of activities largely associated with population pressures and poverty. The clearing of land for agricultural purposes and inadequate or inappropriate forestry management practices are major concerns.

As a developed country which has already taken measures to conserve its own remaining tropical forests, Australia can make a positive contribution to the improvement of forest management practices in developing countries, by providing education, training and technical expertise.

Australia has been actively involved in contributing funds and technical expertise on the management of the remaining tropical forest projects in Sarawak and Papua New Guinea and is also involved in promoting better forestry management practices in the Asia-Pacific region.

Pulp mill guidelines

The Commonwealth has established environmental guidelines for the development of new bleached eucalypt kraft pulp mills. Together with the Forest Conservation and Development Process the guidelines will improve the climate for investment in pulp mills in Australia. These guidelines are probably the most stringent in the world. The proponent of a new pulp mill will be required to:

- prepare an environmental impact statement (EIS) for joint assessment by Commonwealth and State authorities;
- undertake comprehensive baseline environmental studies of the project site and surrounding areas of potential impact;
- monitor compliance with minimum emission standards determined by government authorities as a result of assessment of the EIS and baseline studies; and
- provide public reports on environmental performance.

Agreements with the States will integrate Commonwealth and State environmental assessment processes and ensure the application of stringent Commonwealth environmental standards.

Research

A Forest and Forest Industries Research and Development Corporation has been proposed to coordinate national industry research and development programs to assist our forest and forest products industries to retain and enhance their international competitiveness; improve their potential to produce high value timber-based products; and implement new, more environmentally acceptable processes.

Commonwealth Scientific and Industrial Research Organisation (CSIRO)

CSIRO forestry research is conducted primarily within the Division of Forestry and the Division of Forest Products. The emphasis is on strategic research concerned with the commercial production and processing of wood from both native eucalypt forests and plantations of eucalypts and softwoods.

The Division of Forestry is centred in Canberra with stations in Hobart, Mount Gambier and Perth. The Cooperative Research Centre for Temperate Hardwood Forestry is co-located with the Division in Hobart. The Division of Forest Products is based at Clayton, Melbourne.

Research is conducted in programs which are closely aligned to major forest resources and industry sectors: Softwood Plantations, Hardwood Plantations, Regrowth Forest Management, Australian Tree Resources, Fibres and Chemicals and Wood Science and Technology. Prominent academic disciplines are tree physiology, nutrition, genetics, chemistry and engineering.

Australia's trade deficit in forest products is $1.8 billion per year; reducing this deficit is a major target of governments, industry and research. Sustained high production has long been a major goal of forestry research and eucalypt plantations and regrowth of better native eucalypt forests are a focus of attention. Both types of forest will be important to meet national needs for pulp and paper. CSIRO scientists have contributed to the formulation of guidelines for new bleached kraft eucalypt pulp mills.

FISHING

Fisheries resources

Australia's fisheries stocks are extremely diverse but, by world standards, its marine ecosystem is relatively unproductive. The Australian Fishing Zone covers an area 16 per cent larger than the Australian land mass and is the third largest fishing zone in the world. However, Australia's fish production is insignificant by world standards. This reflects low productivity of the oceans rather than under-exploitation of the resource.

Over 3,000 species of marine and freshwater fish occur in and around Australia and at least an equal number of crustacean and mollusc species. Despite this, less than 100 of these are commercially exploited. Australia's major commercially exploited species are prawns, rock lobster, abalone, tuna, other fin fish, scallops, oysters and pearls. Australian fishing operators concentrate their efforts on estuarine, coastal, pelagic (surface) species and demersal (bottom living) species that occur on the continental shelf.

Australia has enjoyed a relatively long history of success in the farming of the Sydney rock oyster. Pearl culture operations and goldfish farming are well established. The production of juveniles of several species of fin fish, molluscs and crustaceans has been undertaken for some years, initially for restocking wild populations and subsequently for grow-out operations. As in many other developed countries, there has been a surge of interest and investment in many types of aquatic farms over the last decade. Notable successes are the salmonid industry in Tasmania, consisting of about 25 farms, and commercial cultivation of the Pacific oyster, blue mussel and rainbow trout.

Developmental work is active in a number of areas such as barramundi, freshwater crayfish (yabbies and marron), prawns, mussels and algae. Research is continuing into the hatchery rearing of species such as abalone, scallops, giant clams, flat and pearl oysters.

Whales are a protected species in the Australian Fishing Zone.

Production, processing and exports and imports of fisheries products

Value of fisheries production

The following table shows the gross value of the Australian commercial fishing industry. As the value of materials used in the course of production is not available, it is not possible to show net values. Gross value of production is the value placed on recorded production at the wholesale price realised in the principal markets. In general, the principal markets are the metropolitan markets in each State, although, in cases where commodities are consumed locally or where they become raw material for a secondary industry, these points are presumed to be the principal markets.

GROSS VALUE OF FISHERIES PRODUCTION
($ million)

Period	*Value*	*Period*	*Value*
1973–74	109	1982–83(a)	423
1974–75	108	1983–84(a)	449
1975–76	146	1984–85(a)	522
1976–77	206	1985–86(a)	635
1977–78	233	1986–87(a)	702
1978–79	279	1987–88(a)	828
1979–80	326	1988–89(a)	1,022
1980–81(a)	330	1989–90(a)	1,089
1981–82(a)	344	1990–91(a)	1,170

(a) Estimates provided by the Australian Bureau of Agricultural and Resource Economics and the Australian Fisheries Service.

GROSS VALUE OF SELECTED MAJOR FISHERIES CATEGORIES
($ million)

	1987–88	*1988–89*	*1989–90*	*p1990–91*
Prawns	246	285	239	285
Rock lobster	252	282	245	271
Tuna	19	19	66	58
Other fin fish(a)	157	197	252	254
Abalone	96	86	91	84
Scallops	22	21	27	37
Oysters	36	41	35	34
Pearls	n.a.	65	96	103
Other(b)	n.a.	26	38	44
Total	**828**	**1,022**	**1,089**	**1,170**

(a) For human consumption (excludes aquaculture). (b) Other aquaculture not elsewhere included.
Source: Australian Bureau of Agricultural and Resource Economics.

Processing of fish, crustaceans and molluscs

There is very little value added processing of fish products in Australia. Processing establishments vary in size, scope of operations and sophistication of technologies employed. The majority of establishments undertake only the most basic cleaning, filleting, packing and freezing processes, but others have the capacity for significant product transformation.

Fish, crustaceans and molluscs intended for export are processed in establishments registered under the Export (Fish) Regulations. Edible fish for local consumption is mainly dispatched fresh-chilled to markets.

DESTINATION OF AUSTRALIAN FISHERIES EXPORTS

	1988–89		1989–90	
Destination	*Value of exports ($ million)*	*Proportion of total*	*Value of exports ($ million)*	*Proportion of total*
Japan	339.1	60.0	272.0	43.8
USA	79.4	14.1	168.4	27.1
Taiwan	41.4	7.3	54.8	8.8
Hong Kong	49.4	8.7	48.1	7.7
Spain	16.4	2.9	29.3	4.7
Singapore	15.0	2.7	22.8	3.7
Korea, Republic of	2.1	0.4	3.7	0.6
Italy	7.1	1.3	3.5	0.6
New Zealand	2.2	0.4	2.8	0.5
France	2.0	0.4	2.8	0.5
Other	10.8	1.9	13.1	2.1
Total	**564.9**	**100.0**	**621.3**	**100.0**

Source: Unpublished ABS Foreign Trade Statistics.

Exports and imports

Exports of fisheries products comes under Commonwealth jurisdiction, while domestic market activity comes under that of the corresponding State or Territory.

Although a substantial proportion of the Australian salmon, and to a lesser extent tuna catches are canned, the greater part of Australian fish production is marketed fresh-chilled.

A high proportion of Australian seafood production is exported and domestic prices increasingly reflect the conditions on export markets. The Australian fisheries export industry depends on a limited range of products sold on a few major markets, with Japan and the United States accounting for about 70 per cent of the value of our exports for 1989–90.

SOURCE OF AUSTRALIAN IMPORTS OF FISH PRODUCTS

	1988–89		1989–90	
	Volume (tonnes)	*($ million)*	*Volume (tonnes)*	*($ million)*
Thailand	14,404	68.0	14,674	67.8
New Zealand	14,778	62.2	14,111	58.9
Canada	5,749	48.1	5,079	38.9
Malaysia	4,300	31.0	3,897	27.0
USA	4,775	30.3	4,875	26.7
Japan	3,708	17.3	5,235	24.4
Korea, Republic of	4,404	20.9	2,759	15.2
Chile	3,064	8.7	4,631	12.3
United Kingdom	2,009	10.5	3,075	10.2
Other	29,280	115.9	33,588	132.9
Total	**86,471**	**412.9**	**91,924**	**414.3**

Source: Unpublished ABS Foreign Trade Statistics.

Fisheries legislation and territorial arrangements

The Commonwealth Parliament has enacted a number of laws dealing with fisheries in Australian waters beyond territorial limits, and has fishing agreements and arrangements with a number of other countries.

The fisheries laws of the States and the Northern Territory apply to all kinds of fishing within the territorial sea and inland waters. These laws require the licensing of persons and boats in the commercial fisheries and provide a range of other regulatory powers.

The Australian Fishing Zone and foreign fishing

Establishment of a 200 nautical mile Australian Fishing Zone (AFZ) in 1979 covering a total of 8.9 million square kilometres, brought portions of oceanic tuna stocks, and demersal and pelagic fish stocks previously exploited by foreign fishing vessels, under Australian control.

Australia has an international obligation under the Law of the Sea Convention, to allow foreign nations access to resources within the AFZ that are surplus to domestic fisheries requirements and where such access does not conflict with Australian management and development objectives.

Licensed vessels from Japan, Thailand, Taiwan and Norway are currently permitted to operate in Australian waters either under bilateral agreements or joint venture arrangements with foreign governments or fishing companies/organisations.

Following the introduction of controls on the length of gillnets which can be used, foreign pelagic gillnet operations have ceased. Japan is permitted, under agreement, to long line, principally for tunas, off certain areas of Australia. Four Norwegian freezer trawlers currently operate in deeper waters of the AFZ under joint venture arrangements with Australian companies.

In February 1990 the Governments of Australia and the Soviet Union signed a fisheries cooperation agreement which provides a framework with which feasibility fishing might take place under a subsidiary agreement. The agreement also establishes principles under which port access by Soviet trawlers for repairs, revictualling, refuelling and landing of catch might be authorised.

Fisheries Act 1952

This Act applies to commercial fishing for swimming species by Australians in waters extending from 3 to 200 nautical miles seaward of the territorial sea baseline of Australia and external territories excluding the territorial sea of another country, and by foreign boats in the 200 nautical mile AFZ. The AFZ extends 200 nautical miles seaward of the territorial sea baseline of Australia and the external Territories but does not include waters adjacent to Australia's Antarctic Territory or waters exempted from the AFZ by proclamation under section 7A of the Act.

Australia has made maritime delimitation agreements with Indonesia, Papua New Guinea, the Solomon Islands and France. Australia has yet to make a marine delimitation with New Zealand. There are proclamations in force under section 7A of the Act for all overlappings of the AFZ with neighbours' exclusive fishing zones, whether or not Australia has made a delimitation agreement with the country concerned.

This Act requires the holding of licences and empowers the Minister to prohibit fishing activities as necessary for the conservation of resources and the management of the fisheries. The Fisheries Act authorises the publication of management plans having the force of law in relation to particular fisheries.

Refer to *Year Book Australia 1990* for a detailed account of the following Acts: *Continental Shelf (Living Natural Resources) Act 1968; Torres Strait Fisheries Act 1984; Foreign Fishing Boats Levy Act 1981; Fisheries Agreements (Payments) Act 1981;* and *Fisheries Levy Act 1984.*

Research

The main aim of fisheries research in Australia is to provide a background of biological, technical and economic information which will provide guidance for the efficient and sustainable utilisation of fisheries resources. To this end much of the research already undertaken has been directed at formulating recommendations for management of various fisheries. Research work, including feasibility fishing projects involving foreign fishing vessels, is also carried out and is expected to lead to the development of new fisheries, the expansion of under-exploited fisheries, greater economy in operations and the use of more efficient equipment and methods.

The Fisheries Development Trust Account (established under the *Fishing Industry Act 1956*) and the Fishing Industry Research and Development Trust Fund (established under the *Fishing Industry Research and Development Act 1987*) are available to support, financially, projects for the development and management of the fisheries and fishing industry which are consistent with the purposes of those Acts. The former was established with the proceeds of the sale of the assets of the Australian Whaling Commission and is funded by annual Commonwealth appropriation. The latter is a matching fund into which is paid each year an appropriation from Commonwealth government revenue. Total Commonwealth funds are linked to amounts collected from the fishing industry by the State Fisheries Authorities and paid into appropriate State research accounts for the same purpose.

Organisations in Australia at present engaged in research into fisheries matters are:

- CSIRO Division of Fisheries Research, which has its headquarters and main laboratory at Hobart, Tasmania, and regional laboratories in Western Australia and Queensland (fisheries science);
- CSIRO Division of Oceanography, which has its headquarters and laboratory at Hobart, Tasmania;
- CSIRO Division of Food Research, conducts research into handling, storage, processing and transportation of fish at its laboratory in Hobart, Tasmania;
- The Australian Fisheries Service, Department of Primary Industries and Energy, Canberra;
- Bureau of Rural Resources, Department of Primary Industries and Energy, Canberra;
- Australian Bureau of Agricultural and Resource Economics, Department of Primary Industries and Energy, Canberra;
- State fisheries departments (research vessels are operated by all States);
- Great Barrier Reef Marine Park Authority (GBRMPA) located in Townsville and Canberra universities; and
- Private fishing companies (surveys of fisheries resources, research into handling, processing and marketing).

BIBLIOGRAPHY

ABS Publications

There are no ABS publications devoted to forestry and fishery statistics for Australia as a whole, although there are some State based publications. Forestry and fishery statistics are available in publications on broader subjects or in unpublished ABS data, which can be obtained on request.

Manufacturing Industry: Summary of Operations, Australia (8202.0)

Manufacturing Production, Australia: Building Materials and Fittings (8361.0)

Manufacturing Production, Australia: Wood and Wood Products (8369.0)

Other Publications

AUSTRALIAN BUREAU OF AGRICULTURAL AND RESOURCE ECONOMICS. Agriculture and Resources Quarterly (various issues)

AUSTRALIAN BUREAU OF AGRICULTURAL AND RESOURCE ECONOMICS. Commodity Statistical Bulletin (December, 1990)

DEPARTMENT OF PRIMARY INDUSTRIES AND ENERGY. AUSTRALIAN FISHERIES SERVICE, Australian Fisheries

ECOLOGICALLY SUSTAINABLE DEVELOPMENT WORKING GROUPS. Final Report. Fisheries. (November 1991)

FOR MORE INFORMATION

The ABS has a far wider range of information on Australia than that contained in the *Year Book*. Information is available in the form of regular publications, electronic data services, special tables and from investigations of published and unpublished data.

For further information contact ABS Information Services at one of the addresses listed on the page facing the Introduction to the *Year Book*.

Chapter Seventeen

Mineral Industry

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Minerals of economic significance occur throughout Australia, their geological age ranging from Precambrian to Recent. Many of the large deposits such as those at Broken Hill (New South Wales), Mount Isa (Queensland), Olympic Dam (South Australia) and the Kalgoorlie and Pilbara regions of Western Australia and the Alligator Rivers area of the Northern Territory are Precambrian in age. In eastern Australia the major deposits such as the Elura, Cobar, Woodlawn, Hellyer and Rosebery base-metal deposits, the Renison (Tasmania) tin deposit, and most of the gold and black coal deposits, are Palaeozoic in age. The black coals of the Moreton district of Queensland, north-east New South Wales and Leigh Creek, South Australia are of Mesozoic age. Deposits formed in Tertiary times include the brown coal in Victoria, the oil shales of eastern Queensland, the bauxites of Weipa (Queensland), Gove (Northern Territory) and the Darling Range (Western Australia) and the nickeliferous laterites at Greenvale (Queensland) and the mineral sands deposits of the Murray Basin.

Petroleum has been identified in the Australian sediments as old as Precambrian. Australia's major petroleum bearing basins are under Bass Strait (mainly Tertiary) and offshore north-western Australia (mainly Mesozoic). The main onshore basins are the Amadeus, Bowen/Surat, Cooper/Eromanga and Perth Basins.

Australia is self-sufficient in most minerals of economic importance (and much more than self-sufficient in some). Major minerals with known reserves adequate for domestic demand and exports include bauxite (aluminium), black coal, clays, copper, diamonds, gold, iron ore, lead, manganese, mineral sands (titanium and zirconium), natural gas, nickel, salt, silver, uranium and zinc.

THE MINING INDUSTRY

Mining, as specified in the *Australian Standard Industrial Classification (ASIC) 1983* (1201.0), broadly relates to the extraction of minerals occurring naturally as solids such as coal and ores; liquids such as crude petroleum; or gases such as natural gas. It covers extraction by processes such as underground mining, open-cut extraction methods, quarrying, operation of wells or evaporation pans, dredging or recovering from ore dumps or tailings. Activities such as dressing or beneficiating ores or other minerals by crushing, milling, screening, washing, flotation or other processes (including chemical beneficiation) or briquetting, are included because they are generally carried out at or near mine sites as an integral part of mining operations. Natural gas absorption and purifying plants are also included, but establishments mainly engaged in refining or smelting of minerals or ores (other than preliminary smelting of gold), or in the manufacture of such products of mineral origin as coke, cement and fertilisers, are excluded.

The mining sector contributed $17,030 million or 4.6 per cent of Australia's Gross Domestic Product (GDP) of $372,172 million in 1989–90 ($13,498 million or 4.0% in 1988–89).

Mining operations

The following table shows key items of data on the operations of the various areas of the mining industries.

MINING ESTABLISHMENTS: SUMMARY OF OPERATIONS BY INDUSTRY CLASS, 1989–90

ASIC code	Description	Establishments at 30 June	Employment at end of June(a)	Wages and salaries (b)	Turnover	Stocks		Total purchases transfers in and selected expenses	Value added	Fixed capital expenditure less disposals
						Opening	Closing			
		no.	no.	$m	$m	$m	$m	$m	$m	$m
	Metallic minerals									
	Ferrous metal ores									
1111	Iron ores	23	8,843	389.6	2,451.8	274.6	259.9	699.2	1,737.9	134.5
1112	Iron ore pelletising									
	Non-ferrous metal ores									
1121	Bauxite	12	2,125	79.0	473.3	32.5	37.2	124.1	354.0	44.0
1122	Copper ores	15	3,571	153.9	885.9	115.1	142.4	304.0	609.2	89.9
1123	Gold ores	233	9,841	375.3	4,106.5	432.5	504.3	2,017.1	2,161.2	588.7
1124	Mineral sands	26	2,315	74.6	821.7	88.0	124.1	256.4	601.4	235.9
1125	Nickel ores	7	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
1126	Silver–lead–zinc ores	20	4,875	222.7	1,459.0	129.6	166.3	446.3	1,049.4	158.5
1127	Tin ores	8	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
1128	Uranium ores	2	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
1129	Non-ferrous metal ores n.e.c.	7	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
11	*Total metallic minerals*	*353*	*35,266*	*1,440.5*	*11,089.9*	*1,308.7*	*1,464.4*	*4,300.0*	*6,945.6*	*1,383.9*
	Coal, oil and gas									
120	Coal	154	28,982	1,519.3	7,527.4	497.1	665.1	3,157.3	4,538.0	642.4
1300	Oil and gas	107	5,326	274.0	5,715.5	237.3	269.2	465.8	5,281.6	1,067.6
12–13	*Total coal, oil and gas*	*261*	*34,308*	*1,793.3*	*13,242.9*	*734.4*	*934.3*	*3,623.2*	*9,819.6*	*1,710.1*
	Construction materials									
1401	Sand and gravel	214	1,925	46.6	377.1	12.0	16.6	157.5	224.2	55.7
1404	Construction materials, n.e.c.	321	4,040	127.2	1,017.7	62.0	73.9	465.9	563.7	88.5
14	*Total construction materials*	*535*	*5,965*	*173.8*	*1,394.8*	*74.0*	*90.5*	*623.4*	*787.9*	*144.2*
	Other non-metallic materials									
1501	Limestone	38	496	14.7	69.3	5.8	5.0	38.3	30.4	4.8
1502	Clays	29	273	8.6	41.9	3.2	3.8	21.8	20.6	6.7
1504	Salt	18	687	19.4	139.4	24.9	26.5	48.8	92.2	16.3
1505	Non-metallic minerals, n.e.c.	79	1,378	53.4	594.8	54.3	56.6	133.9	463.3	15.4
15	*Total other non-metallic minerals*	*164*	*2,834*	*96.1*	*845.5*	*88.2*	*92.0*	*242.8*	*606.4*	*43.1*
	Total mining (excluding services to mining)	**1,313**	**78,373**	**3,503.7**	**26,573.1**	**2,205.3**	**2,581.1**	**8,789.4**	**18,159.5**	**3,281.3**
	New South Wales(c)	328	22,538	1,095.2	4,664.4	361.1	499.2	1,700.8	3,101.8	521.1
	Victoria	163	3,286	155.8	3,504.6	103.6	93.2	343.7	3,150.5	536.1
	Queensland	332	19,441	894.5	6,888.6	466.9	590.1	2,865.6	4,146.2	502.8
	South Australia	97	3,236	115.0	1,243.0	157.4	175.0	298.4	962.2	103.1
	Western Australia	309	25,523	1,054.5	8,804.7	847.8	950.2	3,062.2	5,844.9	1,511.6
	Tasmania	44	2,053	99.3	423.1	46.7	56.4	179.2	253.7	23.5
	Northern Territory	40	2,296	89.5	1,044.6	221.8	217.1	339.6	700.3	83.1

(a) Includes working proprietors. (b) Excludes the drawings of working proprietors. (c) Includes Australian Capital Territory.

Source: Census of Mining Establishments: Details of Operations by Industry Class, Australia (8402.0).

Mineral production

Statistics on quantities of selected minerals produced and contents of selected metallic minerals produced for 1987–88 and earlier years are contained in *Year Book Australia 1990*. Data for all minerals for more recent years are available in the annual publication *Mineral Production, Australia* (8405.0).

Mineral processing and treatment

As few minerals can be directly used in the form in which they are mined, most minerals must undergo considerable processing and treatment before utilisation. The following table shows the production of the main manufactured products of mineral origin during recent years.

PRODUCTION(a) OF PRINCIPAL MANUFACTURED PRODUCTS OF MINERAL ORIGIN

Commodity		*1987–88*	*1988–89*	*1989–90*
		METALS (b)		
Non-ferrous				
Alumina	'000 tonnes	10,330	10,602	11,041
Refined aluminium	'000 tonnes	1,074	1,226	1,235
Refined copper	'000 tonnes	186	211	245
Lead bullion (for export)(c)	'000 tonnes	201	181	198
Refined lead	'000 tonnes	182	184	197
Refined zinc	'000 tonnes	306	303	295
Refined tin	tonnes	501	377	381
Ferrous				
Pig iron	'000 tonnes	5,544	5,875	6,188
Precious				
Refined gold(d)	kg	111,934	169,653	233,301
Refined silver	kg	304,426	305,013	368,378
		FUELS		
Coal products				
Metallurgical coke	'000 tonnes	3,727	3,889	n.a.
Brown coal briquettes	'000 tonnes	809	751	n.a.
Petroleum products				
Diesel-automotive oil	megalitres	9,399	9,774	10,282
Industrial fuel and marine fuel	megalitres	229	175	142
Fuel oil for burning	megalitres	2,079	2,272	2,479
Automotive petrol	megalitres	15,997	15,913	16,214
		BUILDING MATERIALS		
Clay bricks	millions	1,900	2,175	2,086
Portland cement	'000 tonnes	6,158	6,901	7,075
		CHEMICALS		
Sulphuric acid	'000 tonnes	1,818	1,904	1,464
Superphosphate(e)	'000 tonnes	n.a.	n.a.	2,659

(a) Some products exclude production of single establishment manufacturing establishments employing less than four persons and production of establishments predominantly engaged in non-manufacturing activities but which may carry on in a minor way, some manufacturing. (b) Excludes secondary metal with the exception of basic iron. (c) Metallic content. (d) Newly won gold of Australian origin. (e) Double and triple superphosphate expressed in terms of single phosphate, i.e., nine per cent P equivalent.

Source: Australian Bureau of Agricultural and Resource Economics (non-ferrous, precious metals and petroleum products only).

Exports

The value of Australian exports of mineral resources grew by 14 per cent in 1990–91 to a record $27.5 billion. Exports of mineral resources in 1990–91 accounted for 42 per cent of total exports, compared with 40 per cent in 1989–90.

Major contributors to the increase in 1990–91 were crude oil, up $977 million (95%) to $2,004 million; gold, up $873 million (31%) to $3,685 million; steaming coal, up $485 million (23%) to $2,636 million; liquefied natural gas (LNG), up $470 million (132%) to $825 million; iron ore, up $354 million (16%) to $2,560 million; and refined petroleum products, up $217 million (39%) to $774 million. The only substantial decreases came from aluminium, down $172 million (8%) to $1,958 million; zircon concentrate, down $102 million (38%) to $169 million; and lead, down $55 million (12%) to $391 million.

The 14 per cent growth in the value of mineral resources exports in 1990–91 was mostly attributable to volume increases, as the price index of mineral resources exports rose by only two per cent. Production increases for about two-thirds of the mineral commodities underpinned the growth in export volumes in 1990–91. The most substantial production rises in 1990–91 were for zinc mine production (up 16%), refined lead (up 12%), silver and lead mine production (both up 3%) and refined gold (up 21%). Some offsetting production falls were recorded for manganese (down 31%) and mineral sands concentrates (down an average of 27%).

MINERAL EXPLORATION

Exploration consists of the search for new ore occurrences or undiscovered oil or gas and/or appraisal intended to delineate or greatly extend the limits of known deposits of minerals or oil or gas reservoirs by geological, geophysical, geochemical, drilling and other methods. This includes construction of shafts and adits primarily for exploration purposes but excludes activities of a developmental or production nature. Exploration for water is excluded.

Mineral exploration for other than petroleum

Onshore legislation

Each State or Territory has its own Mining Acts and Regulations governing the prospecting for and working of mineral deposits. These Acts and Regulations although similar in principle are different in detail.

Rights to explore for minerals are awarded by granting prospecting licences and (for larger areas) exploration licences or exploration permits. Each tenement sets out conditions such as minimum exploration expenditure each year, methods of prospecting and tenure of agreement. The tenure is usually limited and if renewed for a further period there is usually a requirement that the area of the tenement be reduced in size. Unless specifically stated in an agreement the discovery of minerals gives the holder of the tenement no legal rights except rights in priority over other applicants for mining titles over the area in which a discovery is made.

Suitable prospects are converted to mining tenements by making application for lease under the appropriate Mining Act. In the case of large-scale, capital-intensive operations mining titles may be acquired by negotiation with the appropriate Minister for Mines. The agreed terms and conditions may be embodied in an Act of the State Parliament.

Most States and Territories make provision for a Miner's Right which permits an individual to prospect or fossick for minerals on Crown Land.

Offshore legislation

Following the enactment of the *Seas and Submerged Lands Act 1973*, the High Court confirmed that the Commonwealth has sovereignty over the territorial sea and sovereign rights over the resources of the whole of Australia's continental shelf. However, in the Offshore Constitutional Settlement between the Commonwealth and the States reached in June 1979, it was agreed that responsibility for mining of the seabed on the landward side of the outer limit of the three nautical mile territorial sea, should lie with the States, while the Commonwealth should have responsibility for areas beyond.

The *Minerals (Submerged Lands) Act 1981*, passed by the Commonwealth Parliament in June 1981, provides for joint Commonwealth–State authorities to be responsible for major matters under the legislation, with the States being responsible for day-to-day administration. The legislation came into force on 1 February 1990. Pending enactment of similar legislation by the States, offshore mining within coastal waters is administered under the onshore mining legislation of the States and the Northern Territory.

The mining code under the new legislation provides for a two-stage system of titles: the exploration permit, which covers all forms of exploration, and the production licence, which covers development.

Mineral exploration expenditure

The following table shows expenditure on private mineral exploration other than for petroleum in Australia during the last six years.

PRIVATE MINERAL EXPLORATION EXPENDITURE (OTHER THAN FOR PETROLEUM)
($ million)

	1984–85	*1985–86*	*1986–87*	*1987–88*	*1988–89*	*1989–90*
New South Wales	49.5	51.8	47.6	61.5	50.6	55.1
Victoria	15.2	12.3	15.5	33.9	21.7	21.0
Queensland	79.5	88.6	120.6	159.3	139.8	128.4
South Australia	57.6	48.9	11.0	18.9	16.6	13.2
Western Australia	189.8	205.2	323.3	466.3	387.2	315.4
Tasmania	17.8	10.6	10.9	10.4	13.1	11.8
Northern Territory	28.0	24.6	27.9	48.9	68.6	62.6
Australia	**437.3**	**442.0**	**556.8**	**799.2**	**697.6**	**607.5**

Source: Actual and Expected Private Mineral Exploration, Australia (8412.0).

Petroleum exploration

Onshore legislation

In Australia, full control of petroleum mining rights is vested with the relevant State or Territory Government. Any organisation or individual proposing to undertake petroleum exploration or development must first satisfy the relevant Government that it has access to the necessary financial and technical resources to undertake the proposed operations.

Three main types of petroleum title are available:

- the exploration title, where the holders are typically given exclusive rights over an area to explore for petroleum by conducting surveys and drilling wells, etc.;
- the production title, which is required for commercial production of petroleum and gives the holder the right to produce and sell the petroleum, is granted subject to the payment of a royalty; and
- retention leases are available in the Northern Territory under the *Petroleum Act 1984* and provide security of tenure over sub-economic discoveries.

Royalty arrangements vary from State to State. Most onshore royalties are determined as a percentage of the well-head value of all petroleum production.

Commonwealth legislation provides for the replacement of all Commonwealth excise on liquefied petroleum gas and crude oil, and State/Territory royalty, with a Resource Rent Royalty (RRR) where the relevant State or Territory Government has negotiated an acceptable agreement with the producers and has agreed upon a revenue sharing formula with the Commonwealth. A RRR applies to the Barrow Island oilfield in Western Australia.

Offshore legislation

As part of the Offshore Constitutional Settlement (OCS) between the Commonwealth and the States, responsibility for administering petroleum exploration and development within the outer boundary of the three nautical mile territorial sea rests with the relevant State or Territory while the Commonwealth has responsibility for the continental shelf beyond the territorial sea. Under the OCS, the States/Northern Territory and the Commonwealth agreed to a common petroleum mining code.

The Commonwealth legislation, *the Petroleum (Submerged Lands) Act 1967,* provides for a joint authority for the adjacent area (beyond the territorial sea) of each State and the Northern Territory consisting of the relevant Commonwealth and the State/Territory Minister. The joint authorities are concerned with major matters arising under the legislation and in the case of disagreement the view of the Commonwealth Minister prevails. Day-to-day administration is the responsibility of the State or Territory Minister as the Designated Authority.

The offshore legislation provides for:

- exploration permits, providing exclusive exploration rights over a specific area;
- production licences to authorise development and commercial production from discovered fields; and
- retention leases to allow security of tenure over sub-economic discoveries.

Offshore projects except the North West Shelf are subject to Petroleum Resource Rent Taxation (PRRT). The tax is levied at a rate of

40 per cent on net project revenues. All exploration expenditures incurred by the explorer in PRRT liable areas are allowable deductions. The North West Shelf project is subject to an excise on crude oil production and a royalty on the net wellhead value of all petroleum production.

The Timor Gap Zone of Co-operation Treaty designates an area of the Continental Shelf between Australia and Indonesia subject to control by a Joint Administration. Revenue collected from petroleum production taxation is shared between the two nations. The Treaty has provisions to prevent double taxation.

In order to encourage offshore petroleum exploration, the Commonwealth conducts a coordinated strategy involving the regular release of exploration acreage, improved collection and dissemination of exploration data to explorers and enhanced company awareness about Australia's title acquisition and taxation agreements. A major feature of the strategy is that explorers are given advance notice of future releases of exploration acreage.

Petroleum exploration expenditure

The table below shows expenditure on private petroleum exploration in Australia during the last six years.

PRIVATE PETROLEUM EXPLORATION EXPENDITURE
($ million)

	1984–85	*1985–86*	*1986–87*	*1987–88*	*1988–89*	*1989–90*
Onshore	419.6	367.8	171.0	271.9	233.6	143.2
Offshore	373.6	398.0	134.1	223.2	405.7	439.4
Total	**793.2**	**765.8**	**305.2**	**495.1**	**639.3**	**582.6**

Source: Actual and Expected Private Mineral Exploration, Australia (8412.0).

ADMINISTRATION

Mineral rights in Australia are held by the State and Territory Governments and the granting of exploration and mining titles is administered by them under the respective State or Territory legislation. The Commonwealth Government holds rights to minerals in Federal Territories and to certain prescribed substances in the Northern Territory, within the meaning of the Atomic Energy Act (principally uranium). The Commonwealth Government is also able to influence overall development and production activity in the mineral industry by virtue of its constitutional powers with respect to international trade, customs and excise, taxation and foreign investment. Certain specially-formed bodies such as the Joint Coal Board have been given administrative responsibility in defined areas. The Government has also established consultative mechanisms, such as the Australian Coal Industry Council, to provide an advisory, rather than administrative, role.

Mineral royalties

The collection by governments of royalties for the production of minerals within their area of authority is an internationally-accepted practice. In Australia, the responsibility for mineral royalties is largely a State concern, and all States currently collect some form of mineral royalty payments.

In recent years there has been an important basic change in the system of establishing royalty commitments, and it is now quite common for State Governments to negotiate special royalty rates with companies which are seeking mineral leases for large-scale developments. These royalty rates may vary, depending on whether production is for export or for domestic processing. The rates for a particular mineral may also vary between producers. Important examples of this type of royalty agreement are the iron ore development agreements in Western Australia and coal development agreements in Queensland. Mineral royalties received by governments in recent years are shown in the following table.

MINERAL ROYALTY RECEIPTS: GOVERNMENTS
($'000)

	1984–85	*1985–86*	*1986–87*	*1987–88*	*1988–89*	*1989–90*
New South Wales(a)	109,194	118,569	135,486	97,166	99,387	128,966
Victoria(b)(c)	206,086	249,489	198,964	157,059	109,037	149,144
Queensland(a)	142,533	196,110	176,451	196,013	178,301	207,994
South Australia	27,739	58,352	33,592	36,011	34,914	44,004
Western Australia(d)	131,640	162,208	154,056	162,648	171,972	252,016
Tasmania	1,043	1,507	1,641	3,048	3,800	6,394
Northern Territory	5,483	8,079	7,186	10,642	9,514	24,079
Commonwealth Government(c)	312,701	394,510	272,501	285,052	182,670	273,077
Total	**936,419**	**1,188,824**	**979,877**	**947,639**	**789,595**	**1,085,674**

(a) Includes royalties on sand and gravel from Crown lands. (b) Includes royalties on brown coal paid by State Electricity Commission. (c) Includes royalties received under the *Petroleum (Submerged Lands) (Royalty) Act 1967–68*. (d) Includes prepaid royalty of $50 million in respect of diamond royalty agreement.

Source: Federal, State and Territory departments responsible for mining.

Government assistance

The Commonwealth Government and the various State Governments provide assistance to the mineral industry in a variety of ways. These were described in detail in *Year Book Australia 1990.*

RESEARCH

Research investigations into problems of exploration, mining, ore-dressing and metallurgy are conducted by government bodies, universities, private enterprise, or by the combined efforts of all these. A summary of their functions follows.

Bureau of Mineral Resources, Geology and Geophysics (BMR)

The BMR is the largest geoscience research organisation in Australia. Its role is to develop an integrated scientific understanding of the geology of the Australian continent, its territories and offshore areas, as a basis for mineral exploration and resource assessment. BMR carries out programs in:

- fossil fuels — including their origin and distribution in space and time; onshore sedimentary basin analysis; geophysical investigations of the structure of onshore basins; framework studies of Australian offshore areas; and modern marine processes;
- minerals — including their origin and distribution in space and time; metallogenic provinces; the weathered zone; and related resources; airborne geophysical mapping and interpretation; crustal geophysics; and the origin and distribution of offshore mineral deposits;
- ground water, and basin hydrogeology;
- earthquake hazards;
- national and international geoscience maps;
- overseas programs — including land geoscience in South-East Asia; marine geosciences in the south-west Pacific; geoscientific cooperation with China; and Antarctica;
- petroleum and mineral resource assessment; and
- national geoscience database.

Commonwealth Scientific and Industrial Research Organisation (CSIRO)

Minerals research by the Commonwealth Scientific and Industrial Research Organisation (CSIRO) is undertaken within the Institute of Minerals, Energy and Construction. The objective of the Institute is to increase the international competitiveness, export earnings, gross domestic product and value of services provided by the minerals, energy and construction industries.

Divisions (and their respective headquarters locations) of the Institute engaged in minerals energy and construction research are the Division of Geomechanics at Syndal (Victoria); the Division of Coal Technology at North Ryde (New South Wales); the Division of Mineral Products at Port Melbourne (Victoria); the Division of Mineral and Process Engineering at Clayton (Victoria); the Division of Exploration Geoscience at Perth (Western Australia); the Division of Fuel Technology at

Lucas Heights (New South Wales); and the Division of Building, Construction and Engineering at Highett (Victoria). The Institute's headquarters is located in Sydney (New South Wales).

University research

The various universities in Australia carry out research into various aspects of the mineral industry such as geology, ore mineralogy and genesis, mining techniques, mineral processing, extractive metallurgy, and materials and metals technology.

Research by private enterprise

The Australian Mineral Industries Research Association Limited (AMIRA) is a non-profit organisation which was set up in 1959 by the Australian mineral industry to manage jointly sponsored research and development on behalf of the industry. There are approximately 140 members of AMIRA, drawn from all parts of the mineral, coal and petroleum industries. Membership ranges from small exploration companies to large mining houses and includes suppliers of services to the industry. The policy of the Association is determined by a council elected by members. AMIRA has no research facilities so organisations such as CSIRO, universities, consultants, suppliers or member companies carry out the research as contractors to AMIRA.

INTERNATIONAL RELATIONS

Because Australia is a large supplier of certain minerals to the rest of the world, and because the welfare of the domestic industry depends to a large extent on the maintenance of a high level of exports, international relations are of considerable importance to the industry, and the Commonwealth Government takes an active role in international consultations and discussions relating to minerals. The most important international links are:

- Association of Tin Producing Countries (ATPC);
- International Lead and Zinc Study Group (ILZSG);
- Association of Iron Ore Exporting Countries (APEF);
- UNCTAD Intergovernmental Group of Experts (IGE) on Iron Ore; and
- International Nickel Study Group (INSG).

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Actual and Expected Mineral Exploration, Australia (8412.0)

Census of Mining Establishments: Details of Operations by Industry Class, Australia (8402.0)

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Other Publications

AUSTRALIAN ATOMIC ENERGY COMMISSION. Annual Report

BUREAU OF MINERAL RESOURCES, GEOLOGY AND GEOPHYSICS. Australian Mineral Industry Annual Review

FOR MORE INFORMATION

The ABS has a far wider range of information on Australia than that contained in the *Year Book*. Information is available in the form of regular publications, electronic data services, special tables and from investigations of published and unpublished data.

For further information contact ABS Information Services at one of the addresses listed on the page facing the Introduction to the *Year Book*.

Chapter Eighteen

Water Resources

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GEOGRAPHIC BACKGROUND

Rainfall, or the lack of it, is the most important single factor determining land use and rural production in Australia. The chapter on Geography contains details on geographical and climatic features that determine the Australian water pattern. The scarcity of both surface and ground water resources, together with the low rates of precipitation which restrict agriculture (quite apart from economic factors), has led to extensive programs to regulate supplies by construction of dams, reservoirs, large tanks and other storages.

The major topographical feature affecting the rainfall and drainage patterns in Australia is the absence of high mountain barriers. Australia's topographical features range from sloping tablelands and uplands along the east coast Main Divide, through the low plain and marked depression in the interior to the Great Western Plateau.

Only one-third of the Australian land mass drains directly to the ocean, mainly on the coastal side of the Main Divide and inland with the Murray–Darling system. With the exception of the latter, most rivers draining to the ocean are comparatively short but account for the majority of the country's average annual discharge. Surface drainage is totally absent from some arid areas of low relief.

Australia's large area (7.7 million square kilometres) and latitudinal range (3,700 kilometres) have resulted in climatic conditions ranging from alpine to tropical. Two-thirds of the continent is arid or semi-arid, although good rainfalls (over 800 mm annually) occur in the northern monsoonal belt under the influence of the Australian–Asian monsoon, and along the eastern and southern highland regions under the influence of the great atmospheric depressions of the Southern Ocean. The effectiveness of the rainfall is greatly reduced by marked alternation of wet and dry seasons, unreliability from year to year, high temperatures and high potential evaporation.

The availability of water resources controls, to a large degree, the possibility and density of settlement; this in turn, influences the quality of the water through production and disposal of waste. Most early settlements were established on the basis of reliable surface water supplies and, as a result, Australia's population is concentrated along the coast, mainly in the comparatively fertile, well-watered east, south-east and far south-west.

As settlement spread into the dry inland grazing country, the value of reliable supplies of underground water was realised. Observations of the disappearance of large quantities of the rainfall precipitated on the coastal ranges of eastern Australia eventually led to the discovery of the Great Artesian Basin which has become a major asset to the pastoral industry. Development, however, has not been without costs. Significant environmental degradation and deterioration in water quality are becoming evident.

Permanent rivers and streams flow in only a small part of the continent. The average annual discharge of Australian rivers has been recently assessed at 398 teralitres (TL) of which 100 TL is now estimated to be exploitable for use on a sustained yield basis. This is small in comparison with river flows on other continents. In addition, there is a pronounced concentration of run-off in the summer months in northern Australia while the southern part of the continent has a distinct, if somewhat less marked, winter maximum.

Even in areas of high rainfall, large variability in flow means that, for local regional development, most streams must be regulated by surface storage. However, in many areas evaporation is so great that storage costs are high in terms of yield. Extreme floods also add greatly to the cost of water storage, because of the need for adequate spillway capacity.

The portion of run-off able to be diverted for use is very low compared with other continents, and results from the high variability of streamflow, high rates of evaporation and the lack of storage sites on many catchments. On an Australia-wide basis, only 21.5 per cent of the divertible resource has currently been developed for use; much of the remaining resource is available in remote regions where development is impractical and uneconomic. In areas such as the Murray–Darling Division, where water is scarce, there are few resources not yet developed, and management is focusing on greater efficiency in water use.

SURFACE WATER RESOURCES AND USE

Drainage division		Surface water resources (teralitres per annum)				
		Mean annual run-off	*Divertible resource*	*Developed resource*	*Use*	*Use as % of developed resource*
I	North-East Coast	83.9	22.9	3.5	0.97	28
II	South-East Coast	41.9	15.1	4.3	2.03	47
III	Tasmania	52.9	10.9	1.0	0.17	17
IV	Murray–Darling	24.3	12.4	10.0	8.05	81
V	South Australian Gulf	0.9	0.3	0.1	0.23	(a)100
VI	South-West Coast	6.7	2.9	0.4	0.38	95
VII	Indian Ocean	4.0	0.3	—	—	—
VIII	Timor Sea	80.7	22.0	2.0	0.10	5
IX	Gulf of Carpentaria	92.5	13.2	0.1	0.12	(a)100
X	Lake Eyre	6.3	0.2	—	0.01	33
XI	Bulloo–Bancannia	1.1	—	—	—	—
XII	Western Plateau	1.6	0.1	—	—	—
Australia		**396.8**	**100.3**	**21.5**	**12.06**	**56**

(a) Includes use of water from unregulated sources.
Source: Australian Water Resources Council, 1987.

The resource is assessed within a framework comprising four levels:

- the **total water resource** is the volume of water present in the environment, measured as mean annual run-off for surface water, and mean annual recharge for ground water;
- the **divertible resource** is the portion of run-off and recharge which can be developed for use;
- the **developed resource** is the portion of the divertible resource which has been developed for use; and
- **resource utilisation** is a measure of the portion of the developed resource which is actually used.

Emphasis is given to the second level of assessment, the divertible resource, as the prime measure of the resource. The divertible resource is defined as 'the average annual volume of water which, using current technology, could be removed from developed or potential surface water or ground water sources on a sustained basis, without causing adverse affects or long-term depletion of storages'.

WATER MANAGEMENT

Australia's water resources are managed by a large number of resource management agencies, irrigation authorities, metropolitan water boards, local government councils and private individuals. State authorities dominate the assessment and control of water resources as, under the Commonwealth Constitution, primary responsibility for management of water rests with the individual State Governments. The Commonwealth Government is responsible for matters relating to its Territories, and participates indirectly through financial assistance or directly in the coordination or operation of interstate projects through bodies such as the Murray–Darling Basin Commission. In other instances where political boundaries intersect some river basins, cooperation between Governments has been necessary to develop resources.

Australia's attitudes to water resources management have changed substantially over the last twenty years. Water management is no longer seen just in terms of storing water and regulating streams for consumption, but also in terms of conserving unregulated streams in an unmodified landscape for wildlife preservation or recreation purposes or for possible social or economic use by future generations. In addition, agricultural, industrial and urban development has led to greater attention being paid to water quality management.

The Australian Water Resources Council, consisting of the Commonwealth, State and Territory Ministers with portfolio responsibilities for water resources, is the peak forum for the water industry. The water resource situation and arrangements in each State and Territory are described below.

Water resources research

The Department of Primary Industries and Energy is responsible for Commonwealth interests in water resource matters.

In July 1990, the Land and Water Resources Research and Development Corporation (LWRRDC) was established to provide leadership and national coordination of research and development of land, water and related issues. It is also responsible for determining national research priorities and in doing so consults its five 'representative organisations': the Australian Conservation Foundation, National Farmers' Federation, National Association of Forest Industries, Standing Committee on Soil Conservation, and the Standing Committee of the Australian Water Resources Council. Projects funded include research on salinity, ground water, stream ecology, waste water management, hydrology and water treatment and quality. Activities to effectively disseminate the results of research were also undertaken.

In 1990–91, the Commonwealth Scientific and Industrial Research Organisation (CSIRO) spent approximately $9 million (of direct appropriation funds) on water research. Competitive research grants, consultancies, and collaborative research provided an additional amount of approximately $8 million for work of direct relevance to the Australian water industry. The Division of Water Resources (resulting from the amalgamation in 1987 of the Divisions of Groundwater Research, Water and Land Resources, and the Centre for Irrigation and Freshwater Research) has a total staff of more than 230 with laboratories in Perth, Adelaide, Canberra and Griffith. The Division's task is to develop new and improved practices for the definition, use, and management of Australia's water resources. The Division of Chemicals and Polymers, based at Clayton, Victoria, has significantly expanded its research on new methods of treating municipal water and waste water, and cleaning up effluents from a wide range of manufacturing industries, resulting in some of the new technologies being marketed world wide. The Centre for Environmental Mechanics conducts research on soil-water processes, evapotranspiration and the physical phenomena of lakes. The Division of Coal and Energy Technology carries out research aimed at assessing the impact on natural waters of mining and industrial processing. Research on soil-water processes and erosion is conducted by the CSIRO Division of Soils.

CSIRO is a partner with LWRRDC, the Murray Darling Basin Commission, and the Albury–Wodonga Development Corporation in the Murray–Darling Freshwater Research Centre.

At the State level, water agencies have extensive laboratory facilities for water quality testing. However, most water related research is undertaken in research centres associated with agriculture, fisheries, forestry and environmental authorities. At the regional level, some of the larger authorities providing water supply and sewerage services undertake applied research on a very limited scale.

A significant proportion of Australian water research is undertaken by researchers in tertiary education institutions with the aid of either internal funding or grants from outside bodies, such as LWRRDC or the Australian Research Grants Committee. Water research is carried out within a range of disciplines, including the biological and social sciences and engineering.

New South Wales

Irrigation takes up the largest volume of consumption water use in New South Wales, on average 75 per cent, with urban water consumption in Newcastle, Sydney and Wollongong taking up the bulk of the remaining 25 per cent.

Major metropolitan urban water supplies are managed by central water boards at Newcastle and Sydney. Water sources for Sydney, Wollongong and the Blue Mountains are good quality rivers and associated storages on the Hawkesbury, and Shoalhaven Rivers and various streams in the Blue Mountains. Newcastle's water supply is taken from the Chichester and Grahamstown Reservoirs and from ground water in coastal sandbeds. Country towns develop their own water supply systems ranging from run-of-river pumping to ground water extractions, to dams built specifically for urban water supply. Metropolitan water authorities are increasingly managing urban water demand to reduce water consumption by a range of mechanisms including pricing and persuasion. Drought management and asset management are more recent areas of concern for metropolitan water utilities which are also increasing their interest in balanced environmental management of water supply catchments.

The bulk of irrigation in New South Wales is within the Murray–Darling Basin, the centre of recent Commonwealth/State initiatives in land and water management to reduce salinity problems. Twenty-four storages, including four shared with Victoria and South Australia and one shared with Queensland, regulate water supplies in the Basin.

Two main irrigation arrangements exist Statewide. Licensed irrigation occurs where licensees take water from rivers, usually by pumping at their own cost. Around 1.5 million megalitres per annum is used in this way.

Irrigation Areas and Districts form the second type of irrigation. These are located on the three southern inland rivers — the Murray, Murrumbidgee and Lachlan and include over 6,300 farms and holdings covering nearly 1.4 million hectares. About a third of this area is usually irrigated using 1.4 million megalitres per annum. Extractions from licensed high-yielding bores now approach 300 gigalitres per annum.

The annual gross value of production in the Murray–Darling system is around $800 million, about 20 per cent of the State's total agricultural production. Nevertheless the growing extent of land degradation and salinisation in the Murray–Darling Basin is reducing productivity and increasing costs of production.

Water management is coordinated through the NSW Water Resources Council, composed of the heads of government agencies which have a role in water management along with representatives of major interest groups.

MAJOR WATER STORAGES NEW SOUTH WALES, 1990–91

Storage	*Catchment area*	*Storage capacity*	*Inflow during year*	*Outflow during year*
	sq.km	megalitres	megalitres	megalitres
Blowering Dam	1,600	1,628,000	2,078,137	2,189,557
Brogo Dam	400	9,000	189,535	189,375
Burrendong Dam	13,900	1,188,000	2,917,704	3,423,424
Burrinjuck Dam	1,300	1,026,000	1,804,668	1,775,968
Carcoar Dam	230	35,800	66,595	77,611
Chaffey Dam	420	61,800	105,174	106,113
Copeton Dam	5,360	1,364,000	650,673	416,773
Dartmouth Dam, Victoria(a)	3,600	4,057,000	1,040,300	1,388,600
Glenbawn Dam	1,300	750,000	229,632	81,422
Glenlyon Dam, Queensland(a)	1,330	253,000	71,353	159,386
Glennies Creek Dam	230	283,000	43,051	66,871
Hume Dam(a)	15,300	3,038,000	6,802,100	6,684,200
Keepit Dam	5,700	423,000	445,757	423,367
Lake Brewster(b)	—	153,000	—	—
Lake Cargelligo(b)	—	35,900	—	—
Lostock Dam	280	20,000	75,409	78,284
Menindee Lakes	—	1,678,000	5,376,886	5,667,240
Pindari Dam	2,000	7,500	238,064	238,474
Split Rock Dam	1,650	397,000	70,145	6,385
Tombullen(b)	—	11,200	—	—
Toonumbar Dam	90	11,000	6,324	8,794
Windamere Dam	1,070	368,000	119,037	47,507
Wyangala Dam	8,300	1,220,000	1,762,714	2,042,459

(a) Operated on behalf of the Murray–Darling Basin Commission. (b) Re-regulatory storages.
Source: Department of Water Resources, New South Wales.

Ameliorating waterlogging and salinisation of farming lands is an environmental management priority for the Commonwealth and States, and New South Wales is pursuing this through a State funded SALTACTION initiative and through the Murray–Darling Basin Ministerial Council. For further information on salinisation, *see* the special article *Salinity — An Old Environmental Problem* in *Year Book Australia 1990.*

Victoria

Water resources are administered by three major agencies, the Office of Water Resources (in the Department of Conservation and Environment), the Melbourne Metropolitan Board of Works, and the Rural Water Commission.

In an average year water consumption in Victoria is as follows:

- 77 per cent irrigated agriculture;
- 16 per cent urban; and
- 7 per cent rural stock and domestic.

The table which follows shows the principal water storages in Victoria.

STORAGE CAPACITY OF RESERVOIRS IN VICTORIA
(gigalitres)

Reservoir	*Storage capacity*	*Reservoir*	*Storage capacity*
Dartmouth	4,000	Upper Yarra	207
Eildon	3,390	Blue Rock	198
Thomson	1,175	Glenmaggie	190
Waranga	411	Cairn Curran	148
Mokoan	365	Yarrawonga	117
Rocklands	348	Toolondo	107
Eppalock	312	Winneke	100
Cardinia	289		

Source: Australian National Committee on Large Dams.

The main rural water supply systems are:

- **Goulburn–Campaspe–Loddon.** The main storage is Lake Eildon with a capacity of 3,390 gigalitres. The main products in these systems are dairy products, fruit, wool and fat lambs. Annual production of deciduous canning fruits in the eastern part of the system is about two-thirds of Australia's total.
- **Murray River System.** The Murray Valley Irrigation Area and the Torrumbarry Irrigation System are irrigated by water diverted at the Yarrawonga and Torrumbarry weirs respectively. These areas are devoted mainly to dairying, fat lambs, fruit, vineyards, orchards and market gardens. Downstream from Swan Hill, the First Mildura Irrigation Trust and four Commission Districts are supplied by pumping, and produce mainly dried vine fruits, citrus fruits and table and wine grapes.
- **Southern Systems**. The Macalister district, supplied from the Macalister River and regulated by Lake Glenmaggie, is devoted mainly to dairying.
- **Werribee and Bacchus Marsh.** These districts produce fresh fruit, vegetables and dairy products mainly for the local domestic market. Irrigation is supplied from the Werribee River system which is regulated by three main storages: Pykes Creek Reservoir, Melton Reservoir and Lake Merrimu.
- **Wimmera–Mallee Domestic and Stock Supply System**. Storages in the Grampian Ranges ensure farm water supplies for dry land, pastoral and cereal farming in the Wimmera and Mallee. There are small areas of irrigation supplied from this system near Horsham and Murtoa.

Nine sub-regional salinity management plans are in various stages of preparation or completion. (Four salinity management plans: Shepparton, Goulburn dryland, Campaspe West and Tragowel Plains, have been accepted by the Government.) The plans are prepared by community based planning groups assisted by a technical committee made up of State Government officers. A lead State agency has been nominated for each management plan. Priority has been given to the Northern Victorian irrigation areas because of the size of their salinity problems and the relationship to the interstate River Murray issue.

Queensland

The management of surface and underground water is exercised by the Water Resources Commission.

Approximately half of the area irrigated in Queensland now uses water from storages constructed by the Commission. The balance is irrigated from unsupplemented surface or ground water supplies spread widely throughout the State. Because of the predominance of irrigation by private diversion from streams, as opposed to channel systems delivering water to farms, most of the storages release water to maintain supplies downstream.

Approximately one-third of the area irrigated in Queensland each year is concentrated in eight Irrigation Areas constituted under the *Water Resources Act 1989* where the supply is generally reticulated by channel systems to the farms. Irrigation projects are schemes established under the Act, where water is released from storages to maintain supplies for pumping under licence to land adjacent to the streams. Details of the projects are set out in the accompanying table.

IRRIGATION AREAS AND PROJECTS, QUEENSLAND, 1990–91

	Announced allocations(a)				*Actual use(a)*		
	Irrigation		*Other uses*				
	Outlets	*Allocation*	*Outlets*	*Allocation*	*Irrigation*	*Other uses*	*Area irrigated*
	no.	megalitres	no.	megalitres	megalitres	megalitres	hectares
Irrigation Areas							
Bundaberg(a)	2,374	397,250	7	15,008	219,719	12,861	49,455
Burdekin River	820	125,891	81	378	122,451	136	10,640
Dawson Valley	301	53,494	7	2,915	24,109	1,482	4,620
Emerald	208	111,933	87	15,494	88,359	17,615	16,611
Eton	617	53,763	41	10,229	38,561	8,876	15,531
Lower Mary River	172	14,254	—	—	11,425	—	4,553
Mareeba–Dimbulah	1,287	84,194	118	47,627	68,507	77,612	13,739
St George(b)	311	70,913	7	2,854	79,380	3,597	14,003
Sub-total	*6,090*	*911,692*	*348*	*94,505*	*652,511*	*122,179*	*129,152*
Irrigation projects							
Awoonga–Callide Pipeline	—	—	1	10,373	—	10,373	—
Barker–Barambah	134	29,797	5	1,600	9,722	1,669	3,000
Blackwater Water Supply System	—	—	28	6,641	—	6,690	—
Bowen–Broken Rivers	—	—	45	6,400	—	4,974	—
Boyne River	59	13,249	—	—	7,687	—	1,120
Callide Valley(a)	441	30,872	71	5,844	23,001	5,448	12,450
Chinchilla Weir	30	2,876	1	1,160	1,747	964	1,200
Condamine Groundwater(b)	352	65,420	18	4,008	33,478	3,140	14,500
Dumaresq River	111	84,964	21	2,011	88,272	1,794	13,439
Fitzroy River Barrage	140	11,650	—	—	6,719	—	1,000
Logan River	160	11,338	6	4,065	8,117	2,148	3,920
Lower Lockyer	189	14,172	—	—	10,904	—	4,300
Macintyre Brook	113	18,587	2	466	10,080	412	2,400
Mary Valley	235	17,125	4	7,014	9,833	4,287	2,760
Proserpine River	76	4,903	6	1,393	5,232	1,075	3,085
Tarong Water Supply System	—	—	36	29,362	—	29,350	—
Three Moon Creek(a)	141	14,144	13	727	10,310	645	2,350
Upper Burnett	279	25,847	4	1,560	25,017	1,540	3,082
Upper Condamine(b)	119	26,774	13	3,345	40,362	2,410	16,420
Warrill Valley	422	24,338	6	10,775	18,447	5,858	8,170
Sub-total	*3,001*	*396,056*	*280*	*96,744*	*308,928*	*82,777*	*93,196*
Total	**9,091**	**1,307,748**	**628**	**191,249**	**961,439**	**204,956**	**222,348**

(a) Includes ground water component. (b) Irrigation includes some waterharvesting component.

Source: Water Resources Commission, Queensland.

The availability of underground water, particularly the Great Artesian Basin, has played a major part in the development of the pastoral industry in Queensland. Underground water is also used extensively for irrigation on individual farms, particularly along the coastal fringe, and for domestic purposes. Some 45 per cent of the area irrigated in Queensland receives its supplies from underground sources. In accordance with the requirements of the *Water Resources Act 1989* the investigation of the availability of underground water is being pursued by geological mapping, investigation drilling and hydro-geological assessment. The predominant areas where water from this source is used for irrigation are the Burdekin Delta, Condamine Valley, Bundaberg, Lockyer Valley, Callide Valley and Pioneer Valley.

Western Australia

The Water Authority of Western Australia manages the majority of water-related services.

Western Australia has a great variation in the size and complexity of water supply schemes, which range from town schemes serving fewer than 50 people to the Perth metropolitan scheme serving a population of 1,200,000.

The table which follows shows the principal water storages in Western Australia.

STORAGE CAPACITY OF RESERVOIRS IN WESTERN AUSTRALIA, 30 JUNE 1989
(megalitres)

Reservoir	*Storage capacity*	*Reservoir*	*Storage capacity*
Lake Argyle (Ord River)	2,797,000	Logue Brook	24,300
South Dandalup(a)	205,350	Waroona	14,954
Serpentine(a)	194,500	Victoria(a)	9,460
Wellington	184,900	Samson Brook	9,170
Kununurra Lake (Ord River)	97,400	Harvey Weir	9,126
Canning(a)	90,350	17-Mile Dam(b)	5,489
Harris	72,000	Fitzroy	4,650
Harding	63,800	Serpentine Pipehead(a)	2,640
Mundaring	63,600	Drakes Brook	2,290
Wungong(a)	59,800	Churchman Brook(a)	2,240
Stirling	56,123	Glen Mervyn	1,490

(a) Serves the Perth Metropolitan Area. (b) On Uralla Creek, an anabranch of the Fitzroy River.
Source: Water Authority of Western Australia.

Considerable use is made of ground water by individual farmers, pastoralists, market gardeners, etc., and it is estimated that over 100,000 bores are in use in the State. Both artesian and non-artesian sources are used to supply or augment the supplies of numerous towns, including such major centres as Perth, Albany, Bunbury, Busselton, Carnarvon, Dampier, Esperance, Exmouth, Geraldton, Karratha and Port Hedland. In a number of mining towns in the north-west, mining companies are responsible for the provision of their own water supplies. Industries also use ground water in substantial quantities, particularly in the processing of titanium, iron and alumina.

Perth is supplied from a number of dams and pipeheads in the Darling Range and from ground water schemes located on the Swan Coastal Plain. Water gravitates or is pumped from these sources to service reservoirs and tanks located at high points over the metropolitan area for gravity feed to consumers. Perth's water consumption is currently about 210 gigalitres per year and is increasing.

The Water Authority is responsible for all town water supply schemes in the country towns of Western Australia, with the exception of the Bunbury and Busselton schemes which are run by local Water Boards. There are also a small number of town water supply schemes operated by mining companies. Individual water supplies serve railways, timber mill towns, isolated mines, pastoral properties, stock routes and agricultural areas, mainly from dams, tanks, wells and bores.

In country areas total control has been exercised on ground water usage in Broome, Gascoyne, Swan and South West Coastal Ground Water areas. The control of other areas has been tailored to the specific problems known to exist.

- **Goldfields and Agricultural Areas Water Supply.** This scheme provides water from Mundaring Weir to consumers in the Central Agricultural Areas and the Eastern Goldfields.
- **West Pilbara Water Supply Scheme**. The West Pilbara Water Supply serves the towns of Dampier, Karratha, Wickham, Point Samson and Roebourne as well as the industrial complexes at Dampier, the Burrup Peninsula and Cape Lambert. Water is supplied exclusively from the Millstream aquifer and the Harding Dam.
- **Geraldton Regional Water Supply Scheme**. The Geraldton Regional Water Supply serves consumers in the towns of Geraldton, Dongara, Port Denison, Mullewa, Walkaway, Eradu and Narngulu with water being drawn from the Wicherina, Allanooka and Wye Springs borefields.
- **Great Southern Towns Water Supply.** This scheme provides water to the coal mining town of Collie together with towns and farmlands in the Great Southern Area. Water is drawn from Harris Dam, which has a capacity of 72 gigalitres, and supplied to towns from Brookton and Kondinin in the north to Kojonup and Gnowangerup in the south and to Lake Grace in the east as well as 600,000 hectares of farmland.
- **Port Hedland Regional Water Supply Scheme**. The Port Hedland Regional Water Supply provides water for the consumers of Port Hedland and South Hedland from the complementary De Grey and Yule River borefields.
- **Lower Great Southern Towns Water Supply Scheme**. This scheme supplies the towns of Albany, Mt Barker and Kendenup. Water is drawn from three sources: Two Peoples Bay east of Albany (from which the water is treated for colour removal), Limeburner's Creek and bores which are located on the west of Princess Royal Harbour.
- **Mandurah Regional Water Supply Scheme.** This scheme provides water to the town of Mandurah and areas to the south and east. Approximately 90 per cent of the water consumed is supplied by gravity from the South Dandalup Dam with the remainder supplied from bores at Ravenswood.
- **Supplies to other country towns.** Nearly 150 towns are supplied with water from stream flow, dams, tanks, wells and bores, the schemes being administered under the provisions of the *Country Areas Water Supply Act 1947.*

The Water Authority is responsible for the provision and maintenance of tanks and wells as a source of cartage water for farmers and a number of small communities in gold mining and agricultural areas.

The Water Authority also undertakes design and construction of water services for Aboriginal communities on behalf of the Aboriginal and Torres Strait Islander Commission. The Authority under contract to the Aboriginal Affairs and Planning Agency assists communities in operating and maintaining schemes and training community operators.

The Water Authority is responsible for the operation and maintenance of seven irrigation and 15 drainage schemes throughout the State from Albany in the south to Kununurra in the north.

Irrigation schemes have been established by the State Government on the coastal plain south of Perth in the Waroona, Harvey, Collie River and Preston Valley Irrigation Districts between Waroona and Donnybrook, the water being channelled from dams in the adjacent Darling Range.

There is a thriving plantation industry situated at Carnarvon near the mouth of the Gascoyne River. This centre is one of the major producers in Western Australia of tomatoes, watermelons, pumpkins, cucumbers, capsicums and runner beans. Carnarvon also supplies capsicums, zucchinis and pumpkins to the eastern States. It produces over half the bananas consumed in Western Australia as well as limited supplies of citrus fruit, mangoes and avocados.

The rainfall at Carnarvon is extremely variable and averages little more than 230 millimetres per annum. Agricultural development has been made possible only by irrigation with ground water. Water is obtained from the growers' own irrigation pumping plants and from the government-controlled Carnarvon Groundwater Supply Scheme which is supplied from bores along the Gascoyne River.

The Ord Irrigation Project provides for the ultimate development of 72,000 hectares of clay soils and additional areas of sandy soils adjoining the clays. Water is currently supplied to 18,000 hectares.

South Australia

All major water resources and most public water supply schemes are administered by the Engineering and Water Supply Department under various statutes.

Currently water diversions totalling more than 509,172 megalitres (supplying an area of 43,000 ha) are made for government, cooperative and private irrigation schemes in the South Australian section of the River Murray. The authority controlling River Murray irrigation is the Engineering and Water Supply Department.

Except for quantities held in various lock pools and natural lakes, no water from the Murray is stored within South Australia for irrigation purposes. In addition to irrigation from the River Murray there are considerable areas irrigated from underground sources.

In 1990–91, River Murray pipelines supplied 95,100 megalitres, which represents 48 per cent of the total intake to the Metropolitan Adelaide Water Supply System, compared with 36 per cent for the previous year. The principal sources of supply for the nine storages in the Mount Lofty Ranges are the Rivers Onkaparinga, Torrens, South Para, Myponga and Little Para. Total metropolitan consumption was 200,100 megalitres.

A number of reservoirs in the Barossa Ranges and other local sources are augmented by the Morgan–Whyalla, Swan Reach–Stockwell and Tailem Bend–Keith pipelines which provide River Murray water to extensive country areas. Surface and underground resources have been developed to supply most country centres not covered by the larger schemes. Total country consumption was 73,777 megalitres.

The table below shows the main reservoirs in South Australia.

STORAGE CAPACITY OF RESERVOIRS IN SOUTH AUSTRALIA
(megalitres)

Reservoir	*Storage capacity*	*Reservoir*	*Storage capacity*
South Para	51,300	Happy Valley	12,700
Mount Bold	45,900	Todd River	11,300
Myponga	26,800	Bundaleer	6,370
Little Para Dam	20,800	Baroota	6,120
Kangaroo Creek	19,000	Warren	4,770
Millbrook	16,500		

Source: Engineering and Water Supply Department of South Australia.

The Murray–Darling Basin Ministerial Council and Commission administer the joint operation of the river system. The Commission is pursuing two main strategies to maintain and improve the quality of River Murray water and improve the management of associated lands. The first is, the Salinity and Drainage Strategy and the second, the Natural Resources Management Strategy (NRMS).

The Salinity and Drainage Strategy involves works to mitigate salinity in the lower reaches of the Murray combined with drainage proposals in the upper States, to rehabilitate waterlogged land. Under this strategy, the Woolpunda Salt Interception Scheme was commissioned in November 1990. This will intercept up to 170 tonnes of salt per day. Approval has also been granted for the construction of the Waikerie Salt Interception Scheme, and investigations are continuing for other projects including Chowilla and Loxton.

Under the NRMS Strategy, development controls administered under the Planning and Water Resource Acts reduce the risks and consequences of flooding, and of degradation of the river and floodplain. Recent attempts to link water with land management issues have been undertaken with progress on integrated catchment management in the Mount Lofty Ranges and Murray Valley. One result is a program over five years which includes obligations on land owners to modify certain land use practices in the Mount Lofty Ranges.

Tasmania

The Hobart Regional Water Board, the Rivers and Water Supply Commission, the North-West Regional Water Authority, the Department of Resources and Energy, and the Hydro-Electric Commission all play responsive roles in the administration of water resources.

Contrary to popular belief, Tasmania is heavily dependent on water conservation in maintaining reliable sources of supply for irrigation, stock and domestic requirements, and urban and industrial water supplies. This is due to an annual summer drought between January and March, when most run-of-the-river flows only support ordinary riparian needs or very limited irrigation and many smaller streams cease to flow.

The total surface water usage for domestic, industrial, and agricultural purposes in Tasmania is only one per cent of the potential exploitable yield, compared with a national figure of about 13 per cent. Despite this, economic, environmental and social constraints are beginning to restrict further development of the total yield for these purposes.

Excluding power generation storages, the total capacity of water conservation dams in the State is about 150 gigalitres, almost half of which is in on-farm dams.

There is widespread use of farm dams for irrigation which is needed to maintain overall production because of the summer drought and the lack of pasture and crop growth in the State's cold winters.

The vast majority of the State's water resources are used for power generation, based on a large, integrated system of water storages. This system also benefits other water users by enabling greatly increased regulation of many streams. The table below shows the major dams and reservoirs in Tasmania.

STORAGE CAPACITY OF RESERVOIRS IN TASMANIA
(gigalitres)

Reservoir	*Storage capacity*	*Reservoir*	*Storage capacity*
Gordon	11,316	Reece Dam	641
Cethana	4,770	Lake King William	541
Miena	3,356	Arthur's Lake	511
Scotts Peak	2,960	Devils Gate	180
Lake St Clair	2,000	Rowallan	131
Mackintosh	949	Bastyan	124
Lake Echo	725		

Source: Australian National Committee on Large Dams.

The Rivers and Water Supply Commission is in charge of three major irrigation schemes, these being the Cressy–Longford Irrigation Scheme, the South East Irrigation Scheme, Stage I, both of which supply water via open channel, and the Winnaleah Irrigation Scheme which supplies water via pipelines.

Of the three schemes, Cressy–Longford is the largest (serving 88 properties) with 10,000 hectares being fit for irrigation. The Coal River Scheme is capable of serving 107 properties of which 3,800 hectares are fit for irrigation. The Winnaleah Scheme serves 1,500 hectares on 72 properties.

The majority of land irrigated in the State is watered by private schemes either by pumping directly from unregulated streams or from on-farm storages. Pasture still predominates as the major crop irrigated but vegetables and other crops now constitute 33 per cent of the total area irrigated.

Northern Territory

The Power and Water Authority is responsible for water resources.

Of approximately 22,000 bores and wells registered in the Territory to 30 June 1990, 25 per cent were for pastoral use, 15 per cent were investigation bores, 30 per cent served urban and domestic supplies, 5 per cent were for agriculture, 17 per cent were used for mining and the remaining 8 per cent for various other uses.

The largest water conservation project in the Territory is the Darwin River Dam (259.0 gigalitres) which serves Darwin with a reticulated water supply. Ground water from McMinns Lagoon area is used to augment supply.

Most other towns and communities, including Alice Springs, Tennant Creek, Jabiru and Nhulunbuy, are supplied from ground water. Water supply to Katherine is from run of river with supplementation from ground water.

Irrigation in the Territory is expanding, but is not extensive, being confined to locations near Darwin, Adelaide River, Daly River, Katherine, Ti Tree and Alice Springs for the purpose of growing fruit, vegetables, fodder crops, pastures and some dairying. Most of this irrigation is carried out using bore water. There are no publicly owned/operated irrigation systems in the Territory.

Australian Capital Territory

The Electricity and Water Authority is responsible for the supply of water.

Surface water storages supplying the Australian Capital Territory (ACT) (population about 295,000) and the city of Queanbeyan (population about 27,000) are located to the south-west and south-east. The storages to the south-west are in the heavily timbered, mountainous Cotter River catchment within the ACT, the storages being Corin Dam (75.5 gigalitres), Bendora Dam (10.7 gigalitres) and Cotter Dam (4.7 gigalitres). The storage to the south-east in New South Wales in the Queanbeyan River catchment (over which the Commonwealth has permanent water rights) on the western slopes of the Great Dividing Range is the Googong Dam (125.0 gigalitres).

The existing storages on the Cotter and Queanbeyan Rivers have an ultimate combined capacity to serve 401,000 persons. The Coree Dam, proposed for the Cotter River, will serve an additional 75,000 persons. The remaining water resource within the ACT is the Gudgenby River which is at present not utilised but has the potential to serve approximately 150,000 persons.

Ground water has been used in the past by most primary producers to augment surface storage. Ground water production bores in the ACT have yields ranging between about 0.4 and 20 kilolitres per hour; 3 kilolitres per hour is about the average yield. However, many farm bores have fallen into disuse as a result of the Government's resumption of freehold land within the ACT, and because of the rapid expansion of urban growth. The Bureau of Mineral Resources has provided a bore-siting, ground water-quality and yield-prediction service in and around the ACT since the early 1950s and has maintained a network of observation bores which have been monitored regularly.

INTERNATIONAL ASPECTS AND NATIONAL AND INTERSTATE AGREEMENTS

For information on international aspects and for national and interstate agreements on the management of water resources *see Year Book Australia 1990*, pages 504–507.

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For information on Northern Territory ground water (and surface water) resources see the Australian Water Resources Council's publication *1985 Review of Australia's Water Resources and Water Use.*

FOR MORE INFORMATION

The ABS has a far wider range of information on Australia than that contained in the *Year Book.* Information is available in the form of regular publications, electronic data services, special tables and from investigations of published and unpublished data.

For further information contact ABS Information Services at one of the addresses listed on the page facing the Introduction to the *Year Book.*

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Energy

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Chapter 19 Energy

Energy is fundamental to Australia's standard of living and economic performance. It has an important role to play in restructuring Australia's economy and improving its competitiveness.

The Commonwealth Government has a significant involvement in the activities of the energy sector through its responsibility for the overall national interest, including the management of the national economy and the equitable distribution of national income. Its responsibilities for export policy and offshore petroleum activities have a major impact on specific development projects.

In 1988 Australia completed an energy policy review published as *Energy 2000 — A National Energy Policy Paper*.

The review highlighted three major energy policy objectives:

- to ensure that Australia's energy supplies are adequate and reliable;
- to achieve the most efficient and competitive domestic energy supply industry; and
- to maximise the export earnings of Australia's energy resources consistent with a need to meet overseas requirements for cost competitive energy resources and with environmental and other social objectives.

Australia is generally well placed to meet these objectives by the year 2000.

Australia has abundant reserves of coal, gas and uranium to meet both export and domestic demands. Given currently known resources, it can continue current production rates in these energy sources for 300 years (black coal only), 45 years, and 145 years respectively. In fact Australia is one of only five Organisation for Economic Cooperation and Development (OECD) countries that are net energy exporters. Australia is:

- the world's largest exporter of coal, accounting for around one-third of the world seaborne coal trade;
- a major uranium producer and exporter, accounting for about 10 per cent of western world production and a greater percentage of its uranium trade; and
- currently an exporter of Liquefied Petroleum Gas (LPG) and petroleum products, and a major exporter of Liquefied Natural Gas (LNG).

Estimates of Australia's demonstrated economically recoverable resources of energy as at December 1990 were:

Black Coal	51.1 Gt
Brown Coal	41.7 Gt
Natural Gas	941 TL
Uranium	469 kt
Crude Oil, Gas Condensate and LPG	491 GL

NOTE: Gt — gigatonnes; TL — teralitres; kt — kilotonnes; GL — gigalitres.

Source: Department of Primary Industries and Energy.

ENERGY RESOURCES

Black coal

Black coal is currently the largest source of primary energy in Australia. By world standards, in relation to present population and consumption, Australia is fortunate in the availability of easily worked deposits of coal. The country's main black coal fields are located in New South Wales and Queensland, not far from the coast and the main centres of population.

Of Australia's identified reserves of black coal, currently estimated at 71 gigatonnes (Gt), about 51 Gt are considered to be economically recoverable. They are located largely in the Sydney Basin in New South Wales and the Bowen Basin in Queensland. There are other coal-bearing basins in New South Wales and Queensland, while small deposits are being worked in Western Australia, South Australia and Tasmania. Australian saleable black coal production in 1990–91 was 166.3 Mt.

For further details relating to the production of black coal in Australia *see* the chapter, Mineral Industry. Details about the nature and age of black coal deposits are given in *Year Book Australia 1980.*

Brown coal

Australia's measured and indicated resources of brown coal were estimated to be around 42 Gt at December 1990. The main deposits are located in Victoria's Latrobe Valley (over 39 Gt). Small deposits exist in other areas of south Gippsland, in south-eastern Victoria at Gelliondale and in the south-central region at Anglesea, Bacchus Marsh and Altona. Deposits are also known at many places along the southern margin of the continent, and as far north as central Queensland. Large deposits are being tested in the Kingston area of South Australia, the Esperance area of Western Australia and at Rosevale in the north-east of Tasmania.

Because brown coal has a relatively low specific-energy value and high water content, its utilisation depends on large-scale, low-cost mining and negligible transportation costs in its raw state. In Victoria, the brown coal industry has reached a high degree of sophistication in mining, on-site development of power generation, briquette and char manufacture.

Petroleum

See the chapter, Mineral Industry, for information on legislation and expenditure on petroleum exploration.

The prospects of further discoveries of petroleum in Australia are considered to be good, particularly in sedimentary basins off the north-west coast. Consistent with the existing pattern of discoveries, undiscovered oil is likely to be of the light, low sulphur type and more gas fields than oil fields should be found. Assessments by the Bureau of Mineral Resources, Geology and Geophysics indicate that there is an average probability of finding at least another 380 gigalitres (GL) (2,400 million barrels) of crude oil in Australia. This compares with demonstrated economically recoverable resources of 278 GL (1,749 million barrels) and demonstrated sub-economically recoverable resources of 27 GL (169.8 million barrels) as at December 1990.

PETROLEUM RESOURCES(a), JUNE 1990

Basin	*Crude oil*	*Gas condensate*	*LPG*	*Sales gas*
	GL	GL	GL	TL
Demonstrated economic resources(b)				
Gippsland (Vic.)	160	23	45	208
Carnarvon (WA)	73	78	50	640
Cooper/Eromanga (SA/Qld)	12	6	10	72
Amadeus (NT) and Bonaparte (WA/NT)	33	—	1	13
Perth (WA)	—	—	—	4
Bowen/Surat (Qld)	—	—	—	3
Canning (WA)	—	—	—	—
Otway (Vic.)	—	—	—	1
Total	**278**	**107**	**106**	**941**
Demonstrated sub-economic resources(c)				
Gippsland/Bass (Vic./Tas.)	12	3	—	24
Bonaparte (WA/NT)	7	7	12	158
Carnarvon (WA)	7	16	—	451
Cooper/Eromanga (SA/Qld)	—	3	6	44
Browse (WA)	—	32	33	465
Perth (WA)	—	—	—	—
Amadeus (NT)	—	—	—	7
Bowen/Surat/Adavale (Qld)	—	—	—	6
Bass (Tas./Vic.)	1	5	7	8
Otway (SA/Vic.)	—	—	—	—
Total	**27**	**66**	**58**	**1,163**

(a) Based on the McKelvey classification which subdivides resources in terms of the economic feasibility of extraction and their certainty of occurrence. (b) Demonstrated economic resources are resources judged to be economically extractable and for which the quantity and quality are computed from specific measurements and extrapolations on geological evidence. (c) Demonstrated sub-economic resources are similar to demonstrated economic resources in terms of certainty of occurrence but are judged to be sub-economic at present.

Source: Department of Primary Industries and Energy.

Crude oil and condensate

Indigenous production in 1990–91 at 31,955 megalitres (551 thousand barrels per day) of crude oil and condensate was slightly lower than the record production in 1989–90 of 31,994. Production of crude oil from the Bonaparte Basin has continued to grow since production started in 1986–87. In 1990–91, the Bonaparte Basin produced 4,081 megalitres of crude oil, nearly 13 per cent of the total indigenous oil production. Production of crude oil from the Gippsland Basin accounts for 55 per cent of total indigenous crude oil production. The North West Shelf was the major producer of condensate during 1990–91 with 56 per cent of indigenous production sourced in that region.

Export volumes of crude oil and condensate increased by 44 per cent in 1990–91 compared with 1989–90, to 9,997 megalitres. The main markets were the United States, Singapore and New Zealand. Imports of crude oil and condensate increased by 15 per cent to 13,381 megalitres.

Liquefied petroleum gas

Liquefied petroleum gas (LPG) is a valuable co-product of oil and gas production and petroleum refining. The major constituents of LPG are propane, propylene and iso- and normal-butane, which are gaseous at normal temperatures and pressures and are easily liquefied at moderate pressures or reduced temperature. Operations involving LPG are expensive in relation to other liquid fuels because LPG has to be refrigerated or pressurised when transported and stored. LPG is an alternative transport fuel for high mileage vehicles in urban areas as well as a petrochemical feedstock and a traditional fuel.

Identified economically recoverable resources of LPG at December 1990 of 114,000 megalitres (ML) were concentrated in Bass Strait, the North West Shelf and the Cooper Basin.

Production of naturally occurring LPG in Australia in 1990–91 was 3,547 ML. The major contributors to this total were the Bass Strait fields (2,500 ML or 70% of total production) and the Cooper Basin (947 ML or 27% of total production). About 43 per cent of domestic LPG production is exported (1,540 ML in 1990–91), mainly to Japan. Domestic consumption of 2,850 ML in 1989–90 was met by 986 ML of product obtained from refineries, with supply shortfalls being met by naturally occurring product and imports.

PETROLEUM PRODUCTION

Year	*Crude oil and condensate*	*LPG(a)*	*Natural gas*
	ML	ML	GL
1982–83	22,069	2,909	11,654
1983–84	26,828	3,132	12,097
1984–85	30,956	3,864	12,963
1985–86	31,734	4,016	14,278
1986–87	31,503	3,927	14,683
1987–88	31,264	3,923	15,249
1988–89	28,255	3,763	15,772
1989–90	31,993	3,785	20,077
1990–91	31,955	3,547	21,109

(a) Naturally occurring.
Source: Department of Primary Industries and Energy.

Natural gas

During 1990–91, 21,109 million cubic metres of natural gas was produced for domestic consumption and export representing an increase of 5.0 per cent from the 1989–90 production level. A further 4,300 million cubic metres of natural gas from the export phase of the North West Shelf project was liquefied for shipment to Japan. This export earned $825 million and represented 20 per cent of total Australian natural gas production.

North West Shelf

The project loaded its 100th shipment of liquefied natural gas to Japan in June 1991.

Currently five ships constantly ply the Australia–Japan Liquid Natural Gas (LNG) trade route and are running at an average of six cargoes a month. With five ships available the North West Shelf project with its two existing liquefaction trains will be producing more than four million tonnes per year. Currently, LNG production on the Burrup Peninsula is averaging more than 10,000 tonnes a day.

Gas production is currently based on output from the North Rankin A platform. However, the Goodwyn A production platform was half completed by June 1991. The construction of the third LNG production train at Karratha and other Goodwyn related onshore facilities was more than half completed at the end of June 1991.

It is estimated that exports of liquefied natural gas to Japan will continue to expand, rising to about six million tonnes per year by 1993–94 with the gas being sold to eight Japanese electricity and gas utilities. It is expected these LNG sales will generate annual export revenue of $1,058 million in 1990–91 dollars.

Oil shale

A description of the nature and location of Australian oil shale deposits was given in *Year Book Australia 1983*.

Major investigations into oil shale development have concentrated on the Condor, Rundle and Stuart deposits in Queensland.

Uranium

Australia has about 31 per cent of the Western world's low-cost uranium reserves. Deposits occur in the Northern Territory, Western Australia, South Australia and Queensland.

Australia's reasonably assured uranium resources, at December 1990, totalled 469,000 tonnes of uranium recoverable at less than $US80 per kg U. The Australian Government's uranium policy provides that the mining and export of uranium will continue from only the Ranger and Nabarlek mines in the Northern Territory and the Olympic Dam mine in South Australia.

Commercial production at the Ranger mine commenced in 1981. Production capacity of the mill is 3,800 tonnes U_3O_8 per annum and production for 1990 totalled 2,895 tonnes U_3O_8. The Nabarlek deposit was mined in 1979 and the ore was stockpiled for later treatment. Production ceased in 1988 and operations ceased in 1990 when the remaining stockpiled ore was exported.

The Olympic Dam mine commenced commercial production of uranium in August 1988. Production capacity of the mill is 1,900 tonnes U_3O_8 per annum and production for 1990 totalled 1,266 tonnes U_3O_8. The mine also produces copper, gold and silver.

All exports of Australian uranium are subject to the most stringent safeguards which provide assurance that none of the material is diverted from peaceful uses. Uranium produced in Australia is exported in the form of yellowcake for use in nuclear reactors for the generation of electricity and research and development pursuant to that purpose.

Production of uranium for 1990 was 4,160 tonnes U_3O_8 and exports were 7,441 tonnes U_3O_8 valued at around $386 million. The large increase in export volumes in 1990 was due to the sale of the Nabarlek stockpile. The *Nuclear Non-Proliferation (Safeguards) Act 1987* gives domestic effect to Australia's international nuclear non-proliferation obligations which require domestic legislation. The legislation establishes a system of permits for the possession and transport of nuclear material (defined to cover uranium, thorium and plutonium), and other physical items such as equipment and material used in nuclear reactors. The permit and related provisions also deal with the possession and communication of sensitive information about nuclear technology, in circumstances where that information is not already a matter of public record. The legislation is administered by the Australian Safeguards Office.

Thorium

Thorium is a radioactive mineral that is about three times as abundant as uranium, but occurs in fewer geological environments and in lower grade accumulation. Most of the world's resources of thorium occur in monazite.

In Australia, monazite is produced from titanium-bearing mineral sands on the east and west coasts. Other thorium occurrences are known, but are uneconomic. Australia presently supplies about 65 per cent of the world's traded monazite. Exports from Australia of thorium and thorium-containing ores require the approval of the Minister for Primary Industries and Energy under the Customs (Prohibited Exports) Regulations.

Solar energy

For specific applications such as domestic water and space heating, solar energy is already beginning to play a valuable role in Australia. Some six per cent of Australian residences have a domestic solar water heater with the local industry currently producing around 30,000 units annually. The use of passive solar design principles in housing is also increasing as low-cost passive designs are developed. The best prospects for using many solar energy technologies are in areas of Australia remote from the major electricity grids, where electricity costs can be anywhere from 3 to 20 times those in metropolitan areas.

Wind energy

While the bulk of Australia's inland has relatively low wind speeds, some coastal and island localities have good wind energy resources, notably on the Western Australian, South Australian and Tasmanian coasts, in Bass Strait and on Lord Howe Island.

At present the use of wind energy in Australia is confined principally to mechanical windmills for water pumping and small wind turbine generators for remote areas. It is unlikely that, in the short to medium term, wind energy will be able to compete on a widespread and large-scale basis with coal for electricity generation in Australia. However, wind turbines could find increasing application in remote areas where wind resources are favourable and which currently rely on diesel fuel for electricity production.

Geothermal energy

The most intensive and well-documented study in Australia of sub-surface temperatures has been made using bore holes in the Great Artesian Basin. However, of the total number of indexed bores, only a very small proportion have water temperatures exceeding 100°C.

In general, it appears that cost constraints will largely restrict the use of our geothermal resources to the supply of hot water for space heating and light industrial purposes. However, for remote homesteads and communities in areas of the Great Artesian Basin, hot artesian bores may well be used to provide an economically viable alternative source of electricity to that obtained from diesel generators.

Biomass

Only two forms of biomass are used significantly as energy in Australia. These are firewood and bagasse, both converted to energy by direct combustion.

Approximately 6.2 megatonnes of firewood are currently used annually in Australia, equivalent in energy terms to about 97 petajoules, or 2.5 per cent of Australia's total energy consumption.

Bagasse is the fibrous residue remaining after extraction of the juice from sugar cane. It is the major fuel used in the sugar industry, providing about 79 petajoules, or 2.0 per cent of Australia's total energy consumption.

FINANCIAL AND ADMINISTRATIVE ARRANGEMENTS

Crude oil marketing and pricing arrangements

The crude oil market was deregulated on 1 January 1988. The new arrangements allow refiners and producers to negotiate freely the quantities and prices of crude oil they buy and sell. Crude oil producers also have complete freedom to export crude oil as an alternative to selling on the domestic market, subject to government policy in times of emergency. The Government no longer fixes an Import Parity Price nor requires refiners to absorb quantities of Australian oil at that price, as it did previously under the allocation system.

Decisions on major refinery investment associated with changes in domestic crude availability have been easier in a deregulated market and a significant program of investment in upgraded plant and equipment has already been undertaken.

The price of crude oil used for the purposes of excise tax assessment for Bass Strait in a free market is the monthly volume weighted average of realised prices of sales of oil from Bass Strait.

Pricing of liquefied petroleum gas (LPG)

As from 1 February 1989, the Government no longer sets the price of LPG on the Australian market. This decision represents an important move towards a free market in LPG and brings LPG into the same pricing arena as other major petroleum products. The Prices Surveillance Authority (PSA) now has responsibility for determining the maximum wholesale price of LPG in each capital city.

Secondary tax arrangements in the petroleum industry

In addition to general taxation arrangements applying to companies in Australia, petroleum production projects are subject to secondary taxes. The type and rate of secondary taxation (resource rent tax, resource rent royalty, or excise and royalties) depends on the location of the petroleum resource, the date of discovery of the petroleum reservoir and the date upon which production commenced.

A *Resource Rent Tax* (RRT) applies to petroleum projects in the majority of Australia's offshore areas beyond the States' territorial seas. Excluded are the Bass Strait and North West Shelf production licence areas and associated exploration permits. Where RRT applies, it replaces excise and royalties which would otherwise have been levied.

A *Resource Rent Royalty* (RRR) may be applied to onshore petroleum projects by State Governments. Where RRR is applied the legislation provides for the Commonwealth to waive its crude oil excise whenever the relevant State Government negotiates an acceptable RRR agreement with the project producers and agrees to a satisfactory revenue sharing formula with the Commonwealth.

Excise applies to crude oil production from the Bass Strait and North West Shelf projects offshore and all onshore areas (except Barrow Island where a RRR applies). Excise also applies to certain LPG produced from offshore projects.

Crude oil excise is based on the annual level of crude oil sales from individual production areas and is levied as a percentage of the realised price received by producers.

Different excise scales are applicable to oil production depending upon the date of discovery of the production area and the date when the area was first developed. In the case of new offshore projects to which excise and royalty apply, and all onshore fields, the first 30 million barrels of crude oil production are exempt from excise. Production beyond this level is subject to the appropriate excise rate.

Oil discovered before 18 September 1975 ('old' oil) attracts a higher rate of excise than oil discovered on or after this date ('new' oil). An 'intermediate' scale also applies to oil produced from 'old' oil fields that were not developed as at 23 October 1984. However, in the case of all onshore fields that commenced production after 1 July 1987, production in excess of 30 million barrels is subject to 'new' oil excise.

A *Commonwealth Royalty* is also levied on offshore petroleum production except in the case where RRT applies. Proceeds are shared, generally on a 32:68 basis by the Commonwealth and the appropriate State or Territory. Thus, Victoria receives a share of the royalty from petroleum produced from Bass Strait, and Western Australia receives a share of the royalties from the North West Shelf. Onshore petroleum rights are vested in the State and Northern Territory Governments and the Commonwealth does not in general receive a share of this royalty.

Incentives to encourage petroleum exploration and development

Apart from the deregulation of crude oil marketing from 1 January 1988 and the concessions to the crude oil excise regime, the Government continues its policy of encouraging petroleum exploration and development in Australia.

Australian participation guidelines for foreign investment policy in respect of new oil and gas development proposals involving total investment of over $10 million no longer apply. These projects will be allowed to proceed unless judged contrary to the national interest.

The immediate 100 per cent deductibility of exploration expenditure against company tax has been retained, as has the write-off over 10 or 20 years in equal instalments of expenditure on infrastructure such as pipelines.

The Government continues to release offshore petroleum exploration acreage regularly, usually twice a year. The latest release was made on 10 May 1991 and offered 21 areas off the coast of Western Australia, South Australia, Victoria, Tasmania and the Northern Territory.

GOVERNMENT INITIATIVES

Institutional arrangements

The Commonwealth Minister for Primary Industries and Energy has portfolio responsibility for national energy policy matters, including the commercial development of hydrocarbon fuels and minerals. The Department of Primary Industries and Energy provides support for a number of advisory bodies including the National Energy Research Development and Demonstration Council, the Australian Minerals and Energy Council, the National Energy Consultative Council, the National Oil Supplies Advisory Committee, the National Petroleum Advisory Committee, the National Fuels Emergency Consultative Committee, the Australian Coal Marketing and Technology Council, and the Consultative Committee on Safety in the Offshore Petroleum Industry.

The Department is also responsible for the implementation of action required from Australia's membership of the International Energy Agency and for the national system of accounting for control of nuclear materials under Australia's Agreement with the International Atomic Energy Agency.

Research and development

The Energy Research and Development Corporation (ERDC) was established in July 1990 as part of a program to improve the effectiveness of the government's investment in research and development by increasing the level of industry involvement. It is responsible for developing energy research programs in conjunction with the diverse non-coal energy sectors including gas, petroleum, renewable energy sources and systems, and electricity supply industries.

In the general research category, ERDC invested in 11 projects in 1991. The total cost of the projects is $13 million, of which the ERDC contribution is $4 million over an average of 3 years. This reflects the Corporation's strategy of encouraging the pooling of resources and research skills to undertake larger, focused research which is supported by a number of partners.

ERDC has also placed considerable emphasis on the joint venture category where industry partners invest at least 50 per cent of the funds for the project. This pooling of resources results in more focused R&D, addressing specific industry needs for the short, medium and long term. The Corporation has identified three joint ventures for investment (further investments in this category will be made during 1991–92). The total value of these projects is $19 million, of which ERDC is contributing $3 million.

International Energy Agency (IEA)

The IEA (of which Australia is a member) carries out the International Energy Program and the Long Term Co-operation Program. These programs aim to:

- prepare member countries against risk of oil supply disruptions and share remaining supplies in the event of a severe oil shortfall;
- develop alternative energy sources and the more efficient use of energy through cooperative research and development programs; and
- promote cooperative relations with other oil-producing and oil-consuming countries.

ELECTRICITY AND GAS SUPPLY

At 30 June 1990, the total installed public electric generating capacity in Australia was 34.4 million kilowatts.

Of total public electrical energy produced during 1989–90 hydro-electric sources provided approximately 10 per cent, and the balance was supplied by fossil fuels with approximately 80 per cent provided by coal. The development of coal-fired power stations has been facilitated by the presence of large demonstrated economic resources of coal close to the major industrial areas in New South Wales and Victoria.

About 90 per cent of electric power in Australia is produced by power stations owned and operated by State government utilities.

Natural gas consumption in 1990–91 was 638 petajoules, a decrease of 7.0 per cent on 1989–90 and contributed 17.4 per cent of Australia's energy requirements.

Natural gas exports in the form of LNG (Liquified Natural Gas), began in 1989 and for the year 1990–91 were equal to 185.0 petajoules.

ELECTRICITY AND GAS ESTABLISHMENTS: SUMMARY OF OPERATIONS, 1989–90(a)

	Establishments at 30 June (no.)	*Employment at 30 June* Males (no.)	Females (no.)	Persons (no.)	Wages and salaries ($m)	Turnover ($m)	*Stock* Opening ($m)	Closing ($m)	Purchases, transfers in and selected expenses ($m)	Value added ($m)
ELECTRICITY										
New South Wales	29	21,425	2,645	24,070	940.8	7,392.6	375.0	419.8	3,993.5	3,443.9
Victoria	13	17,925	1,554	19,479	528.6	3,084.1	126.9	145.0	797.6	2,304.6
Queensland	11	7,607	1,324	8,931	292.1	3,051.6	192.9	178.9	1,681.3	1,356.3
Other States and Territories(b)	16	12,898	1,712	14,610	429.6	3,198.5	232.8	230.2	1,086.1	2,109.8
Australia										
1989–90	69	59,855	7,235	67,090	2,191.2	16,726.8	927.5	973.8	7,558.5	9,214.6
1986–87	74	70,875	7,719	78,594	2,179.3	12,041.4	777.4	997.0	6,384.8	5,876.3
1984–85	83	75,153	7,458	82,611	2,000.8	10,154.4	714.5	631.2	5,214.8	4,856.3
1983–84	82	75,362	7,275	82,637	1,823.6	9,342.0	696.4	713.5	4,642.5	4,716.5
GAS										
Queensland	6	324	70	394	10.6	86.5	3.9	4.8	47.5	39.8
Other States and Territories(c)	28	8,326	1,960	10,286	275.1	2,903.4	74.6	81.0	1,523.7	1,386.0
Australia										
1989–90	34	8,650	2,030	10,680	285.7	2,989.9	78.5	85.8	1,571.2	1,425.8
1986–87	34	9,260	1,847	11,107	274.0	1,985.8	69.9	69.1	943.0	1,042.0
1984–85	34	8,788	1,729	10,517	229.4	1,655.2	71.8	70.0	828.5	825.0
1983–84	34	8,909	1,635	10,544	217.9	1,386.4	72.9	72.0	633.6	752.0

(a) Changes to business units definitions in 1989–90 have caused some discontinuities, particularly in relation to the number of establishments. (b) The number of electricity establishments operating at 30 June 1990 for these States/Territories were: South Australia — 5; Western Australia — 4; Tasmania — 1; Northern Territory — 5; and Australian Capital Territory — 1. (c) The number of gas establishments operating at 30 June 1990 for these States/Territories were: New South Wales — 21; Victoria — 2; South Australia — 2; Western Australia — 1; Tasmania — nil; Northern Territory — 1; and Australian Capital Territory — 1.

Source: Electricity and Gas Establishments, Australia (8208.0).

The main features of the production and distribution of electricity and gas in each State and Territory are outlined below.

Snowy Mountains Hydro-Electric Scheme

The Commonwealth Government's major direct role in the electricity supply industry is its responsibility for the Snowy Mountains Scheme. It is a dual purpose complex which supplies water for electricity generation and irrigation. Located in south-eastern Australia, on its completion the Scheme was one of the largest engineering works of its type in the world. It impounds the south-flowing waters of the Snowy River and its tributary, the Eucumbene, at high elevations and diverts them inland to the Murray and Murrumbidgee Rivers through two tunnel systems driven through the Snowy Mountains. The Scheme also involves the regulation and utilisation of the headwaters of the Murrumbidgee, Tumut, Tooma and Geehi Rivers. The diverted waters fall some 800 metres and together with regulated flows in the Geehi and Tumut River catchments generate mainly peak load electricity for the States of New South Wales and Victoria and the Australian Capital Territory as they pass through power stations to the irrigation areas inland from the Snowy Mountains.

A special article on the Scheme appeared in *Year Book Australia 1986.*

New South Wales

The Electricity Commission of New South Wales is responsible for the generation and transmission of electricity which it sells in bulk to distributing authorities (mainly local government bodies) throughout a large part of the State. As the principal generating authority, it is also responsible for the development of major new power sources except in the Snowy Mountains region.

At June 1990 the six major power stations of the Electricity Commission of New South Wales and their base load capacities were as follows: Bayswater (Hunter Valley) 2,640 MW; Liddell (Hunter Valley) 2,000 MW; Munmorah (Tuggerah Lakes) 1,200 MW; Vales Point (Lake Macquarie) 1,320 MW; Eraring (Lake Macquarie) 2,640 MW; and Wallerawang (near Lithgow) 960 MW. Two 660 MW units are being installed at Mount Piper Power Station which is located on the western coalfield near Lithgow. Commissioning of the Mount Piper station is planned to commence in 1993. The total nominal capacity of the Electricity Commission's system at 30 June 1990 was 11,390 MW. The maximum demand for electricity from the Commission's system during 1989–90 occurred on 28 June 1990 and was 9,619 MW. Electricity sent out over the Commission's system from these power stations in 1989–90 was 45,597 GWh.

Interconnection of the New South Wales and Victorian power systems with that of South Australia was completed in December 1989 and commercial operations began in March 1990. Studies have begun to explore interconnection of the New South Wales and Queensland power systems.

The greater part of the hydro-electric potential of New South Wales is concentrated in the Snowy Mountains area, which is controlled by the Snowy Mountains Hydro-Electricity Authority. New South Wales' share sent out over the Commission's system in 1989–90 was 2,347 GWh. Apart from this area, major hydro-electric stations are in operation at the Warragamba Dam (50 MW) and Hume Dam (50 MW). A pumped-storage hydro-electric system to produce 240 MW has been installed as part of the Shoalhaven Scheme in conjunction with the Water Board. In addition, there are five smaller hydro-electric installations in operation in various parts of the State.

Electricity sent out over the Commission's system from these hydro-electric stations in 1989–90 was 374 GWh.

Total electricity generated in New South Wales from all sources in 1989–90 was 51,699 GWh.

Natural gas was made available to Sydney consumers with the completion of an overland supply pipeline from the Moomba field in South Australia in 1976. With the connection of natural gas pipelines into existing reticulation systems, the use of gas manufactured from coal or petroleum has been entirely superseded in the main population centres of the State. A number of regional centres not yet connected to the natural gas distribution network still retain their own manufactured gas production and reticulation systems. These systems are operated either by local government or by commercial interests. However, together they account for less than three per cent of total sales in New South Wales.

The total amount of gas (of all types) available for issue through mains in New South Wales in 1989–90 was 97,339 terajoules.

Victoria

The State Electricity Commission (SEC) is a semi-government authority with the principal responsibility of generating or purchasing electricity for supply throughout Victoria.

At June 1991, it distributed electricity directly to 1,607,400 customers and indirectly to a further 288,300 through 11 metropolitan councils which buy power in bulk for retail distribution under franchises granted by the Victorian Government before the SEC's establishment.

Victoria's electricity system is based upon the State's extensive brown coal resource in the Latrobe Valley, 140 to 180 kilometres east of Melbourne in central Gippsland, one of the largest single brown coal deposits in the world — *see* earlier section on brown coal.

The major brown coal-fired generating plants in the system are the 2,000 MW Loy Yang 'A', the 1,600 MW Hazelwood and 1,450 MW Yallourn 'W' power stations. Other brown coal-fired plants are Morwell (170 MW). These stations are all located in the Latrobe Valley and generate 80 per cent of the State's electricity requirement.

Other thermal stations are Jeeralang (465 MW) gas turbine station in the Latrobe Valley and Newport 'D' (500 MW) gas-fired station in Melbourne. There are hydro-electric power stations in north-eastern Victoria: Kiewa (184 MW), Eildon–Rubicon–Cairn Curran (135 MW) and Dartmouth (150 MW). Victoria is also entitled to about 30 per cent of the output of the Snowy Mountains Hydro-Electric Scheme and half of the output of the Hume hydro-electric station near Albury.

The SEC's total installed generating plant capacity at 30 June 1991 was 7,763 MW, including both capacity within the State and that available to it from New South Wales. In 1990–91, electricity generated by the SEC in its thermal and hydro-electric power stations, or purchased, totalled 39,178 GWh.

The Loy Yang 'B' station, the second part of the Loy Yang project, has at this stage approved capacity of 1,000 MW in two units of 500 MW each. The first of these units is expected to be in full operation by mid-1993.

The Gas and Fuel Corporation combines the resources of government with those of private enterprise to supply gas.

Natural gas is distributed to almost 1.2 million domestic, industrial and commercial customers through an underground network of transmission pipelines and mains, some 23,380 kilometres in length.

In addition to the greater Melbourne area, a reticulated supply is provided in 53 cities and towns throughout Victoria and in Albury, New South Wales.

Ninety nine per cent of reticulated supply is Bass Strait natural gas, purchased from Esso and BHP. Six towns in western Victoria receive a reticulated supply of tempered liquefied petroleum gas.

Apart from its main business of supplying natural gas, the Corporation markets liquefied petroleum gas (LPG). Under the 'Heatane Gas' brand, LPG is sold through 118 outlets to 170,000 customers either direct or through a state-wide network of 800 independent dealers.

The Corporation consists of the parent organisation and three wholly-owned subsidiary companies: Gas and Fuel Exploration NL (with joint venture interests), CD Resources Pty Ltd, and The Albury Gas Company.

Queensland

The main supply of electricity in Queensland is controlled by the Queensland Electricity Commission (QEC). The QEC provides electricity to major users of power and to seven Electricity Boards which in 1989–90 provided power to 996,542 domestic and 165,650 commercial and industrial consumers, increases of 4.4 and 2.0 per cent respectively over the previous year.

Electricity generation in Queensland is based primarily on the State's plentiful resources of black coal. Supply of 97.1 per cent of the energy needs of the industry in 1989–90 came from this source. The Barron Gorge and Kareeya hydro-stations produced 2.9 per cent with a small amount being produced by the gas turbine stations connected to the main transmission network and by internal combustion stations supplying townships.

Annual total energy sales have been growing at 6.2 per cent per annum over the last 5 years. The annual increase in domestic sales for 1989–90 was 7.1 per cent. This was well above the average increase of the last 5 years of 4.7 per cent and for the first time in recent years above the annual increase in commercial and industrial sales at 6.1 per cent. The commercial and industrial sector however remains the dominant influence on sales accounting for two-thirds of total sales and having an average growth over the past five years of 6.3 per cent.

Planning for the future is still based on coal-fired power stations providing the bulk of Queensland's electrical energy needs, augmented as necessary by pumped-storage and conventional hydro-electric stations for peaking capacity. To meet the growth in demand, the Stanwell Power Station will be required to come on-line in 1993 and be completed in 1996. The need for the Tully–Millstream Hydro-Electric Scheme anticipated to commence generating in 1997 is under review.

Queensland has a reticulated town gas system in the Brisbane region and in the cities and towns of Bundaberg, Cairns, Roma, Dalby, Oakey and Toowoomba. By June 1990 there were over 3,179 kilometres of mains laid in these centres and the systems serviced 116,907 consumers. Roma, Dalby, Oakey, Toowoomba, South Brisbane and the main industrial areas of North Brisbane reticulate natural gas, whereas Bundaberg, Cairns and the domestic–commercial areas of North Brisbane reticulate reformed town gas. Total sales of natural gas (excluding feedstock) in 1989–90 were 19,573 terajoules compared with 18,459 terajoules in 1988–89. Sales of reformed town gas were 1,114 terajoules and 1,134 terajoules respectively.

Western Australia

The State Energy Commission of Western Australia (SECWA) is responsible for providing economical and reliable supplies of electricity and gas.

SECWA owns and operates three major thermal power stations. These are located at Muja (1,040 MW capacity) and Bunbury (120 MW), both using local coal to produce electricity, and at Kwinana (880 MW). Kwinana power station has the capacity to burn coal, oil or natural gas, although natural gas from the North West Shelf is the major fuel used. Gas turbines are located at Pinjar (north of Wanneroo), Mungurra (south-east of Geraldton), Kwinana, Geraldton and Kalgoorlie to provide peak and emergency power.

SECWA operates two power grid systems which supply the electricity needs of 98 per cent of the State's population. The two systems are:

- *The South–West interconnected system.* Power from the three major stations provide the bulk of electricity fed into the South–West system. This grid services the metropolitan area and covers the southern portion of the State extending from Kalbarri south to Bremer Bay and from Perth east to Kalgoorlie. Kalgoorlie is fed by a 680 kilometre transmission line from Muja, one of the longest radial feed lines constructed in Australia.
- *The Pilbara interconnected system.* This system interconnects Karratha, Dampier, Cape Lambert, Wickham, Roebourne, Port Hedland and Goldsworthy. Electricity is supplied from a generating plant at Cliffs Robe River Iron Associate's power station at Cape Lambert. The plant is fuelled by North West Shelf natural gas. Back-up power can be drawn from the SECWA's stand-by diesel generating facility at Port Hedland, from Hamersley Iron Pty Ltd's power station at Dampier and from a SECWA gas turbine generating unit also located in Dampier.

In areas too remote to utilise the interconnected grid systems, the SECWA operates 28 diesel power stations and provides support services for the Aboriginal and Torres Strait Islander Commission to help run 34 Aboriginal village power stations.

At June 1990, the SECWA's generating capacity from its interconnected grid system was 2,280 MW, while the capacity of its supply system in country areas was 184 MW. There were 623,000 customer accounts for electricity throughout the State.

The SECWA is the main supplier of gas in Western Australia. In addition to reticulating (principally) North West Shelf natural gas to customers linked to the Dampier to Bunbury pipeline, SECWA also reticulates tempered liquefied petroleum (TLP) gas to customers in Albany on the south coast and Simulated Natural Gas (SNG) to customers in Mandurah, south of Perth.

At June 1990 there were 243,731 customer accounts for natural gas and 2,537 customer accounts for TLP gas.

Development of the use of wind power to generate electricity has intensified in recent years. Wind generators augment the power supplies of Rottnest Island and Salmon Beach, close to Esperance. SECWA is currently studying the use of wind energy generators on the interconnected grid and has identified sites near Geraldton and Albany as being suitable for a wind farm of up to 20 MW capacity.

South Australia

The Electricity Trust of South Australia (ETSA) is responsible for unification and coordination of the major portion of the State's electricity supply.

At June 1990, the Electricity Trust's installed capacity was 2,350 MW. Its major power stations are Torrens Island (1,280 MW), Port Augusta Northern Power Station (500 MW), and Port Augusta Playford 'B' (240 MW). The Trust also operates gas turbine stations at Dry Creek (156 MW), Mintaro (90 MW) and Snuggery (75 MW) and a small diesel station at Port Lincoln (9 MW).

The Electricity Trust supplies directly or indirectly more than 99 per cent of all electricity customers connected to the public supply within the State. The remainder are supplied by small diesel generating plants situated in towns in the more remote areas of the State. Total Electricity Trust customers at 30 June 1991 was 670,000.

A 500 MW capacity interconnection with the Victorian–New South Wales systems has been operational since March 1990.

SAGASCO Holdings Ltd has responsibility for oil and gas exploration, development and production, and the distribution within the State of gas and LPG. It has three subsidiaries: South Australian Gas Company Ltd (to supply gas to Adelaide and surrounding areas), SAGASCO Resources Ltd (to undertake oil and gas exploration, development and production) and SAGASCO LPG Pty Ltd.

Natural gas is reticulated throughout most of Adelaide, Angaston, Whyalla, Mount Gambier, Peterborough and Port Pirie. Liquefied petroleum gas is distributed by reticulation at Roxby Downs and is available elsewhere as bottled gas.

Tasmania

Tasmania's electricity requirements are provided by the Hydro-Electric Commission. The total installed generator capacity at 30 June 1991 was 2,315 MW of which almost 90 per cent was supplied by an integrated hydro-network. An oil-fired thermal station of 240 MW is located at Bell Bay.

The Hydro-Electric Commission also purchased electricity amounting to nine GWh from two privately owned developments.

Hydro-electric power accounts for almost all reticulated energy in Tasmania. A usually reliable distribution of rainfall throughout the year and the establishment of numerous lakes within the State, has created substantial artificial storage.

The total energy generated during the 1990–91 financial year was 9,026 GWh, a 0.1 per cent increase on the previous year. Total sales amounted to 8,404 GWh of which 5,396 GWh was sold to the major industrial sector.

Total water storages at June 1991 were 24.3 per cent, the same as at June 1990. Below average rainfall for the year accounted for this position. The total energy yield from storages during 1990–91 was 85.6 per cent of the long-term average. In order to maintain water storage levels, Bell Bay thermal station was used to contribute 992 GWh to the State's energy requirements.

Construction is continuing on two more hydro-power schemes in western Tasmania. The King River Power Development, scheduled for completion in 1992, and the Anthony Power Development, expected to be completed in 1994, will add 226 MW to the installed capacity of the system.

A 1.5 MW Wave Power Station on King Island is possible. A feasibility study is to be undertaken by a Norwegian company Norwave which has built a similar plant on Norway's west coast.

Gas is only a minor energy source in Tasmania. Town gas is manufactured and reticulated in Launceston only. Bottled LPG is a minor domestic, commercial and motor fuel in the State.

Northern Territory

The Power and Water Authority (PAWA) is responsible for generation, transmission and distribution of electricity, the provision of water and sewerage services and the sale of natural gas in the Northern Territory.

A natural gas pipeline from the Amadeus Basin in Central Australia supplies the Territory's four major centres — Darwin, Katherine, Tennant Creek and Alice Springs — all of which use indigenous natural gas, replacing imported heavy fuel oil and distillate as fuel for electricity generation. A combined cycle block of 100 MW comprises half of the installed capacity at Channel Island Power Station near Darwin.

A privately built, owned and operated transmission line between Darwin and Katherine, allows reserve capacity to be shared and has reduced costs because of the higher operating efficiencies of Channel Island Power Station compared with Katherine Power Station.

PAWA supplies electricity to some 44,500 customers in four major centres, seven minor centres and 75 small remote communities.

Australian Capital Territory

Electricity is distributed within the Territory by the ACT Electricity and Water Authority

(ACTEW). During 1990–91 the total bulk electricity purchased was 2,239 GWh, comprised of 1,569 GWh provided by the Electricity Commission of New South Wales and a reservation of 670 GWh from the Snowy Mountains Hydro-Electric Authority. The system maximum demand was 524 MW. The authority supplied 110,699 customers at June 1991.

Natural gas from the Moomba fields in South Australia is piped to Canberra via a 70 kilometre spur which branches from the main Moomba–Sydney pipeline at Dalton.

During 1990–91, AGL Canberra Ltd reticulated 3,396 terajoules of natural gas to 1,052 commercial and industrial establishments and about 30,000 homes.

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New South Wales Energy Survey, October 1984: Sample File on Magnetic Tape (8215.1)

New South Wales Energy Survey: Part 1 — Household Appliances, Facilities, Insulation and Appliance Acquisition, October 1984 (8211.1)

Other Publications

Other organisations which produce statistics in this field include the Department of Primary Industries and Energy, the Joint Coal Board, the Australian Institute of Petroleum and the Electricity Supply Association of Australia. State government departments and instrumentalities also are important sources of energy data, particularly at the regional level, while a number of private corporations and other entities operating within the energy field also publish or make available a significant amount of energy information.

FOR MORE INFORMATION

The ABS has a far wider range of information on Australia than that contained in the *Year Book*. Information is available in the form of regular publications, electronic data services, special tables and from investigations of published and unpublished data.

For further information contact ABS Information Services at one of the addresses listed on the page facing the Introduction to the *Year Book*.

Chapter Twenty

Manufacturing and Retail

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MANUFACTURING

Contribution of the Manufacturing Industry to gross product and employment

Manufacturing sector contribution to gross product fell consistently between 1980–81 and 1985–86, before flattening out in subsequent years. The proportion of employed wage and salary earners attributable to the manufacturing industry has shown a consistent decline since 1983–84, falling from 20.0 per cent in that year to a low of 17.3 per cent in 1989–90.

MANUFACTURING INDUSTRY: CONTRIBUTION TO ALL INDUSTRY AGGREGATES

	Gross product at constant (average 1984–85) market prices		*Manufacturing sector contribution to all industry aggregates for*	
Year	*Manufacturing*	*All industries*	*Constant price gross product*	*Employment*
	$m	$m	%	%
1980–81	37,955	192,412	19.7	n.a.
1981–82	38,895	200,024	19.4	n.a.
1982–83	35,697	193,149	18.5	n.a.
1983–84	36,234	202,460	17.9	20.0
1984–85	38,088	214,665	17.7	19.4
1985–86	39,007	224,886	17.3	19.0
1986–87	39,528	227,948	17.3	18.5
1987–88	42,016	239,903	17.5	18.1
1988–89	44,510	251,638	17.7	17.5
1989–90	46,137	262,530	17.6	17.3

Source: Australian National Accounts: Gross Product, Employment and Hours Worked (5211.0); Employed Wage and Salary Earners, Australia (6248.0).

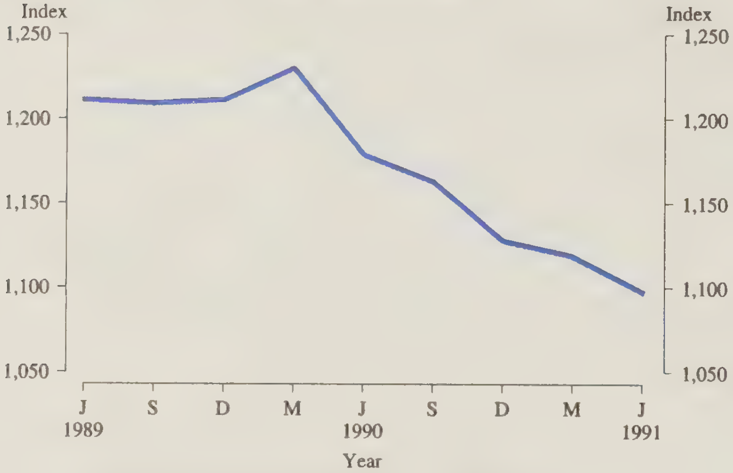
Manufacturing trends

For the June quarter 1991 the index of manufacturing production recorded its fifth consecutive quarterly fall (1.9%), with the index for this quarter being 6.9 per cent below the level for the June quarter 1990 (*see* graph on next page). The index for June quarter 1991 was the lowest recorded since September quarter 1987.

Over the period 1981–82 to 1990–91 the index of manufacturing production increased by 10.4 per cent (*see* table on next page). After a fall of 8.2 per cent in 1982–83, the index increased every year until 1990–91 when it again fell by 6.6 per cent.

The largest increases over the period 1981–82 to 1990–91 occurred in Food, beverages and tobacco (+28.8%), Paper, paper products, printing and publishing (+28.6%) and Chemical, petroleum and coal products (+19.1%). Falls occurred in Transport equipment (–24.6%), Clothing and footwear (–18.7%), Non-metallic mineral products (–5.5%) and Other machinery and equipment (–0.7%).

INDEX OF TOTAL MANUFACTURING GROSS PRODUCT AT AVERAGE 1984-85 PRICES, SEASONALLY ADJUSTED
(Base: 1984-85 = 1,000)



Source: Quarterly Indexes of Industrial Production, Australia (8125.0).

INDEXES OF MANUFACTURING INDUSTRY GROSS PRODUCT AT AVERAGE 1984–85 PRICES
Index numbers (Base: 1984–85 = 1,000)

Industry subdivision	*1981 –82*	*1982 –83*	*1983 –84*	*1984 –85*	*1985 –86*	*1986 –87*	*1987 –88*	*1988 –89*	*1989 –90*	*1990 –91*
Food, beverages and tobacco	996	992	989	1,000	1,015	1,041	1,104	1,141	1,208	1,283
Textiles	944	870	908	1,000	1,020	1,090	1,097	1,105	1,174	1,051
Clothing and footwear	960	896	968	1,000	1,124	1,041	1,063	1,102	847	780
Wood, wood products and furniture	1,028	909	953	1,000	1,138	1,031	1,156	1,200	1,300	1,176
Paper, paper products, printing and publishing	930	881	919	1,000	1,033	1,086	1,176	1,252	1,324	1,196
Chemical, petroleum and coal products	968	941	975	1,000	984	1,030	1,105	1,129	1,182	1,153
Non-metallic mineral products	1,069	920	925	1,000	1,137	1,034	1,090	1,233	1,196	1,010
Basic metal products	954	826	916	1,000	985	997	1,019	1,070	1,098	1,029
Fabricated metal products	1,201	1,026	998	1,000	1,096	1,086	1,226	1,343	1,558	1,406
Transport equipment	980	932	916	1,000	990	933	956	1,039	983	739
Other machinery and equipment	1,197	1,002	950	1,000	1,990	1,080	1,143	1,251	1,266	1,189
Miscellaneous manufacturing	1,011	920	944	1,000	912	1,052	1,130	1,185	1,219	1,117
Total manufacturing	**1,021**	**937**	**951**	**1,000**	**1,024**	**1,038**	**1,103**	**1,169**	**1,206**	**1,127**

Source: Quarterly Indexes of Industrial Production, Australia (8125.0).

Structure of the Manufacturing Industry

The following table of statistics, obtained from the annual Manufacturing Census, provides an overview of the structure and operations of the manufacturing industry.

SUMMARY OF OPERATIONS OF THE MANUFACTURING INDUSTRY

Industry subdivision	*Establishments operating at 30 June (no.)*	*Employment at 30 June(a) ('000)*	*Wages and salaries (b) ($m)*	*Turnover ($m)*	*Persons employed per establishment (no.)*	*Turnover per person employed ($'000)*
		1986–87				
Food, beverages and tobacco	4,278	170.4	3,458	24,967	40	146.5
Textiles	923	34.7	672	3,409	38	98.2
Clothing and footwear	2,715	75.6	1,139	4,327	28	57.2
Wood, wood products and furniture	7,506	82.3	1,325	6,117	11	74.3
Paper, paper products, printing and publishing	4,396	109.9	2,397	10,552	25	96.0
Chemical, petroleum and coal products	1,094	54.1	1,419	11,311	49	209.1
Non-metallic mineral products	2,344	40.3	932	5,460	17	135.4
Basic metal products	716	73.8	2,022	14,068	103	190.6
Fabricated metal products	6,541	102.0	1,975	8,695	16	85.2
Transport equipment	2,104	113.3	2,490	11,156	54	98.5
Other machinery and equipment	5,487	131.7	2,692	11,793	24	89.5
Miscellaneous manufacturing	4,074	64.1	1,221	6,262	15	97.7
Total manufacturing	**42,178**	**1,052.2**	**21,743**	**118,116**	25	**112.2**
		1989–90(c)				
Food, beverages and tobacco	4,177	171.7	4,206	33,256	41	193.7
Textiles	914	29.0	738	4,126	32	142.3
Clothing and footwear	2,683	65.8	1,283	5,052	25	76.8
Wood, wood products and furniture	6,945	83.6	1,856	8,287	12	99.1
Paper, paper products, printing and publishing	4,737	106.8	3,030	13,590	23	127.2
Chemical, petroleum and coal products	1,141	51.7	1,720	18,883	45	365.2
Non-metallic mineral products	1,877	42.8	1,258	7,856	23	183.6
Basic metal products	820	67.1	2,326	20,578	82	306.7
Fabricated metal products	6,686	104.9	2,649	12,778	16	121.8
Transport equipment	2,125	106.0	2,932	16,677	50	157.3
Other machinery equipment	5,716	134.6	3,602	15,902	24	118.1
Miscellaneous manufacturing	3,976	64.0	1,620	8,059	16	125.9
Total manufacturing	**41,797**	**1,028.0**	**27,220**	**165,045**	25	**160.5**

(a) Includes working proprietors. (b) Excludes the drawings of working proprietors. (c) Comparability between statistics from the 1989–90 census and previous census has been affected by a number of factors (*see Manufacturing Industry, Australia, Preliminary (8201.0)* for 1989–90). Care should be taken in interpreting movements in statistical aggregates between 1986–87 and 1989–90.

Source: Manufacturing Industry, Australia, Preliminary (8201.0).

In 1989–90, the industries with the most persons employed at 30 June were Food, beverages and tobacco (171,700), Other machinery and equipment (134,680), Paper, paper products, printing and publishing (106,800) and Transport equipment (106,000). The industries with the fewest persons employed were Textiles (29,000) and Non-metallic mineral products (42,800). The industry with the largest number of persons employed per establishment was Basic metal products (82), while Wood, wood products and furniture (12) had the lowest. Food, beverages and tobacco ($33,256 million) recorded the largest turnover, while Textiles ($4,126 million) and Clothing and footwear

($5,052 million) recorded the smallest. Turnover per person employed was greatest for Chemical, petroleum and coal products ($365,200) and Basic metal products ($306,700) and lowest for Clothing and footwear ($76,800) and Wood, wood products and furniture ($99,100).

Between 1986–87 and 1989–90, the number of manufacturing establishments decreased slightly from 42,178 to 41,797. (Note: changes to unit rules, scope, etc. of the Manufacturing Census have significantly affected establishment counts for 1989–90. *See* footnote (c) in table above). Persons employed fell by 2.3 per cent from 1,052,209 to 1,028,000 with 7 of the 12 industry subdivisions showing a fall over the period. Textiles (down 16%) and Clothing and footwear (down 13%) recorded the largest percentage falls while Non-metallic mineral products (up 6%) recorded the biggest percentage increase.

Employment

The statistics on the number of persons employed shown in the following table relate to end of June employment, including working proprietors and those persons working at separately located administrative offices and ancillary units in the State.

EMPLOYMENT IN MANUFACTURING AT 30 JUNE 1990
('000)

Industry subdivision	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Aust.*
Food, beverages and tobacco	50.7	49.1	35.7	16.3	12.5	6.3	0.5	0.6	171.7
Textiles	7.5	14.0	1.3	2.9	1.7	1.6	n.p.	n.p.	29.0
Clothing and footwear	20.2	35.0	4.7	3.9	1.6	0.3	n.p.	n.p.	65.8
Wood, wood products and furniture	25.2	22.5	15.2	8.1	8.0	3.8	0.2	0.7	83.6
Paper, paper products, printing and publishing	38.3	35.6	12.7	7.3	6.6	4.7	0.4	1.3	106.8
Chemical, petroleum and coal products	21.5	18.4	5.1	2.1	3.8	n.p.	n.p.	—	51.7
Non-metallic mineral products	14.1	11.8	7.2	3.9	4.7	0.9	0.2	0.2	42.8
Basic metal products	30.8	11.9	7.5	7.1	5.6	n.p.	} 1.3	n.p.	67.1
Fabricated metal products	36.5	33.3	14.9	8.4	9.4	1.6		n.p.	104.9
Transport equipment	24.0	50.3	10.2	16.6	3.5	1.3	0.1	0.1	106.0
Other machinery and equipment	54.2	43.3	10.8	16.4	8.5	0.9	0.1	0.4	134.6
Miscellaneous manufacturing	21.7	24.6	6.4	7.4	3.1	0.7	0.1	0.1	64.0
Total manufacturing	**344.6**	**349.8**	**131.7**	**100.3**	**69.0**	**26.0**	**2.9**	**3.7**	**1,028.0**

Source: Manufacturing Industry, Australia, Preliminary (8201.0).

New South Wales and Victoria dominate manufacturing in Australia, comprising over two-thirds of employment in 1989–90. However, the industry distribution of employment across States does not follow this pattern. Textiles, Clothing and footwear and Transport equipment industries are particularly significant in Victoria; Food beverages and tobacco dominate in Queensland; while Transport equipment is important in South Australia.

The quarterly Survey of Employment and Earnings is the ABS's major source of statistics on employed wage and salary earners. For further information refer to the chapter, Labour.

Labour costs

Major labour costs in the manufacturing industry increased by approximately 15 per cent between 1987–88 and 1989–90. For each year in the period, earnings comprised approximately 89 per cent of total costs. This ratio is consistent with the average for all industries.

MAJOR LABOUR COSTS OF MANUFACTURING INDUSTRY

Type of labour cost	1987–88	1988–89	1989–90	1989–90 Percentage distribution of labour costs by type	
				Manufacturing	All industries
	$m	$m	$m	%	%
Earnings	24,353	27,281	28,032	88.6	89.0
Other labour costs	3,105	3,316	3,596	11.4	11.0
Payroll tax	1,157	1,312	1,342	4.2	3.3
Superannuation	896	918	1,086	3.4	5.0
Workers' compensation	923	936	1,009	3.2	2.2
Fringe benefits tax	129	150	159	0.5	0.6
Total major labour costs	**27,458**	**30,597**	**31,628**	**100.0**	**100.0**

Source: Labour Costs, Australia (6348.0).

Average total labour costs per employee in 1989–90 of $30,809 represented an increase of nearly 17 per cent over 1987–88 costs and was 8 per cent above 1988–89 costs. For 1989–90, the average labour costs in the manufacturing industry were significantly higher than the average of $27,777 per employee for all industries.

AVERAGE LABOUR COST PER EMPLOYEE IN MANUFACTURING INDUSTRY, BY TYPE ($)

Type of labour cost	1987–88	1988–89	1989–90	
			Manufacturing	All industries
Earnings	23,406	25,374	27,306	24,709
Other labour costs	2,984	3,084	3,503	3,068
Payroll tax	1,112	1,220	1,307	904
Superannuation	861	853	1,058	1,391
Workers' compensation	887	871	983	605
Fringe benefits tax	124	140	155	169
Total major labour costs	**26,389**	**28,457**	**30,809**	**27,777**

Source: Labour Costs, Australia (6348.0).

Capital expenditure

New capital expenditure in the manufacturing industry fell significantly between 1989–90 and 1990–91 (down 12%), with only Food, beverages and tobacco (up 10%) and Basic metal products (up 14%) registering increases over the period. Textiles, Clothing and footwear (down 48%) and Paper, paper products, printing and publishing (down 39%) experienced large falls in new capital expenditure in 1990–91. After a fall of 13 per cent in new capital expenditure in 1988–89, Basic metal products showed consecutive increases in 1989–90 and 1990–91.

PRIVATE NEW CAPITAL EXPENDITURE IN MANUFACTURING INDUSTRY
($ million)

Industry subdivision	*1988–89*	*1989–90*	*1990–91*
Food, beverages and tobacco	1,240	1,321	1,428
Textiles; Clothing and footwear	378	373	176
Paper, paper products, printing and publishing	957	896	545
Chemical, petroleum and coal products	975	1,202	1,195
Basic metal products	881	1,168	1,323
Transport equipment	822	779	717
Fabricated metal products and Other machinery and equipment	1,089	1,061	854
Other manufacturing(a)	1,319	1,706	1,266
Total manufacturing	**7,661**	**8,506**	**7,503**

(a) Includes Wood, wood products and furniture; Non-metallic mineral products; and Miscellaneous manufacturing.
Source: Private New Capital Expenditure, Australia, Actual and Expected Expenditure (5626.0).

Turnover

The following table shows the value of turnover of manufacturing establishments. The figures include sales of goods whether produced by the establishment or not; transfers out of goods to other establishments of the same enterprise; bounties and subsidies on production; plus all other operating revenue from outside the enterprise (such as commission, repair and service revenue and rent, leasing and hiring revenue), plus capital work for own use, or for rental or lease. Receipts from interest, royalties, dividends, and sales of fixed tangible assets are excluded.

TURNOVER BY MANUFACTURING INDUSTRY, 1989–90
($ million)

Industry subdivision	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Aust.*
Food, beverages and tobacco	9,839	10,261	6,921	2,645	2,325	1,103	105	59	33,256
Textiles	1,223	1,997	221	359	157	166	n.p.	n.p.	4,126
Clothing and footwear	1,781	2,579	287	292	85	23	n.p.	n.p.	5,052
Wood, wood products and furniture	2,668	2,139	1,345	718	796	528	18	74	8,287
Paper, paper products, printing and publishing	5,170	4,617	1,425	832	676	733	29	108	13,590
Chemical, petroleum and coal products	6,863	6,342	2,746	490	2,247	n.p.	n.p.	—	18,883
Non-metallic mineral products	2,627	2,134	1,447	604	807	152	40	45	7,856
Basic metal products	8,214	3,880	3,392	1,491	2,510	n.p.	} 360	n.p.	20,578
Fabricated metal products	4,494	4,088	1,855	833	1,212	155		n.p.	12,778
Transport equipment	2,498	7,890	1,584	4,175	395	121	7	7	16,677
Other machinery and equipment	6,679	5,527	1,182	1,458	945	70	6	35	15,902
Miscellaneous manufacturing	2,861	3,128	745	775	478	59	9	5	8,059
Total manufacturing	**54,915**	**54,582**	**23,151**	**14,671**	**12,634**	**4,083**	**578**	**430**	**165,045**

Source: Manufacturing Industry, Australia, Preliminary (8201.0).

The Clothing and footwear, Textiles and Transport equipment industries are concentrated in Victoria with that State accounting for 51.0 per cent, 48.4 per cent and 47.3 per cent respectively of the Australian turnover for those industries. The Basic metal products industry is concentrated in New South Wales with 39.9 per cent of the Australian turnover being generated in that State. Although Queensland accounts for only 14.0 per cent of total manufacturing turnover in Australia, it has 20.8 per cent of the Australian turnover for the Food, beverages and tobacco industry. Similarly, South

Australia has 25.0 per cent of the Australian turnover for the Transport equipment industry compared with only 8.9 per cent of total manufacturing turnover for Australia.

Price indexes of articles produced

From 1988–89 to 1990–91, the price index of articles produced by the manufacturing industry rose by 11.2 per cent (over the same period, the Consumer Price Index rose by 13.7%). The largest increase occurred in the price index of articles produced by the Petroleum products industry (50.1%). The Textiles industry had the smallest increase (3.4%).

PRICE INDEXES OF ARTICLES PRODUCED BY MANUFACTURING INDUSTRY(a)
(Base of each index: Year 1988–90 = 100.0)

Industry subdivision	*1989–90*	*p1990–91*
Food, beverages and tobacco	106.9	109.5
Textiles	103.2	103.4
Clothing and footwear	107.3	112.0
Wood, wood products and furniture	107.6	112.7
Paper, paper products printing and publishing	104.3	111.0
Chemicals and chemical products	104.4	109.3
Petroleum products	118.4	150.1
Non-metallic mineral products	108.7	117.2
Basic metal products	105.6	106.2
Fabricated metal products	107.9	113.7
Transport equipment	105.6	109.9
Other machinery and equipment	104.2	107.0
Miscellaneous manufacturing	103.7	106.4
All manufacturing industry	**106.5**	**111.2**

(a) These indexes relate only to articles produced in the industry for sale or transfer outside the industry.
Source: Price Indexes of Articles Produced by Manufacturing Industry, Australia (6412.0).

Company profits

Profits before income tax earned by manufacturing companies have shown consecutive falls over the two years since 1988–89, with profit registered for 1990–91 being 39 per cent lower than for 1988–89. Profits in the Transport equipment industry dropped sharply over the period, from $413 million to a loss of $165 million. Food beverages and tobacco was the only industry to record an increase in profit over the period (36%).

Over the 12 months to June 1991 profits in the manufacturing industry fell by 32 per cent compared with a 21 per cent fall for other selected main industries (principally mining, manufacturing, retail, wholesale and construction) over the same period.

MANUFACTURING COMPANIES: PROFIT BEFORE INCOME TAX BY INDUSTRY
($ million)

Industry subdivision	*1988–89*	*1989–90*	*1990–91*
Food, beverages and tobacco	1,172	1,316	1,543
Textiles; Clothing and footwear	324	268	181
Paper, paper products, printing and publishing	331	376	263
Chemical, petroleum and coal products	1,206	1,022	711
Basic metal products	1,905	1,454	705
Transport equipment	413	457	–209
Fabricated metal products and Other machinery and equipment	1,248	1,015	615
Other manufacturing(a)	2,018	1,860	1,163
Total manufacturing	**8,616**	**7,766**	**4,972**

(a) Includes Wood, wood products and furniture; Non-metallic mineral products; and Miscellaneous manufacturing.
Source: Company Profits, Australia (5651.0).

Foreign investment

The level of foreign investment in manufacturing industry in Australia was $48,301 million at 30 June 1990. The industries with the highest levels of foreign investment were Food, beverages and tobacco ($12,825 million) and Basic metal products ($10,625 million). Between 30 June 1988 and 30 June 1990 the industries with the largest percentage increases in levels of foreign investment were Paper, paper products, printing and publishing (up 71%), Miscellaneous manufacturing (up 70%) and Non-metallic mineral products (up 49%).

FOREIGN INVESTMENT IN MANUFACTURING INDUSTRY(a) AT 30 JUNE
($ million)

Industry subdivision	*1988*	*1989*	*1990*
Food, beverages and tobacco	9,757	12,532	12,825
Textiles	383	552	429
Clothing and footwear	85	211	112
Wood, wood products and furniture	81	56	73
Paper, paper products, printing and publishing	2,280	3,532	3,906
Chemical, petroleum and coal products	4,692	5,183	5,281
Non-metallic mineral products	643	537	959
Basic metal products	10,417	11,242	10,625
Fabricated metal products	979	843	1,178
Transport equipment	2,198	2,231	2,392
Other machinery and equipment	2,868	4,395	2,685
Miscellaneous manufacturing	4,613	6,040	7,836
Total manufacturing	**38,996**	**47,354**	**48,301**

(a) The industry categories shown relate to the predominant activity of the enterprise group receiving the investment funds. This is not necessarily the industry of end use of the funds.
Source: International Investment Position, Australia (5305.0).

Principal manufacturing commodities

The following table shows the total recorded production of some selected articles manufactured in Australia.

Of the twenty-seven selected articles produced by manufacturing establishments, twenty had lower levels of production in 1990–91 than in 1989–90. The production levels in 1990–91 were less than in 1988–89 for twenty two of the articles produced.

QUANTITIES OF SELECTED ARTICLES PRODUCED IN MANUFACTURING ESTABLISHMENTS

Article	*Unit of quantity*	*1988–89*	*1989–90*	*1990–91*
Basic iron, spiegeleisen and sponge iron	'000 tonnes	5,875	6,188	5,600
Iron and steel ingots or other primary forms(a)	tonnes	6,651	6,681	6,219
Blooms and slabs(b)	tonnes	2,578	2,440	2,521
Gas(c)	terajoules	548,454	591,193	536,193
Electricity	mil.kWh	144,853	152,956	155,759
Bricks, clay	million	2,175	2,077	1,765
Cement, portland	'000 tonnes	6,901	7,075	6,110
Particle boards and similar boards(d)	'000 cu m	n.a.	768	625
Plastics in primary forms(e)	'000 tonnes	986	985	948
Sulphuric acid, oleum	'000 tonnes	1,904	1,464	986
Refrigerators, domestic	'000	380	346	363
Clothes washing machines, domestic	'000	397	330	326
Colour television sets(f)	'000	162	158	167
Electric motors	'000	3,076	2,528	2,480
Lawn mowers, rotary petrol type	'000	298	247	213
Motor vehicles				
Cars and station wagons	'000	333	386	311
Vehicles for goods and materials(g)	'000	30	26	18
Yarn(h)				
Cotton	tonnes	20,364	20,603	23,781
Wool	tonnes	21,458	19,758	18,809
Woven fabric(h)				
Cotton (incl. towelling)	'000 sq. m	36,316	40,452	35,687
Wool (incl. blanketing)	'000 sq. m	9,803	8,459	7,641
Man-made fibre	'000 sq. m	191,596	173,848	178,498
Textile floor coverings	'000 sq. m	45,923	45,101	42,837
Confectionery				
Chocolate base	tonnes	93,418	92,626	93,449
Other	tonnes	64,655	63,890	63,603
Beer(i)	'000 litres	1,951	1,939	1,911
Tobacco and cigarettes(j)	tonnes	27,158	27,318	26,833

(a) Includes ingots, puddled bars, pilings, blocks or lumps and steel in the molten state. (b) From rolling and forging of iron and steel (primary mills output). Excludes from continuous casting. (c) Available for issue through mains. Includes natural gas. (d) Not laminated. (e) Includes liquid, paste, powder, granules, flakes, blocks, irregular shapes, lumps and similar forms. (f) Excludes combination with radio etc. (g) Includes utilities, panel vans and prime movers for semi-trailers. (h) Includes mixtures predominantly of the fibre named. (i) Includes ale and stout. (j) Source: Australian Customs Service.

NOTE: Data in this table exclude operations by single establishment enterprises employing fewer than four persons.

Source: ABS manufacturing production publications (8357.0 to 8369.0).

Concentration of enterprises in the Manufacturing Industry

Concentration statistics provide information on the extent to which a few enterprise groups predominate in individual industries. They are a useful aid in assessing the degree of competition existing among enterprise groups engaged in an industry.

CONCENTRATION OF ENTERPRISES IN MANUFACTURING INDUSTRY, IN TERMS OF EMPLOYMENT(a)

Enterprise groups ranked by turnover	*1972–73*		*1977–78*		*1982–83*		*1987–88*		*1988–89*	
	'000	*Ratio*	*'000*	*Ratio*	*'000*	*Ratio*	*'000*	*Ratio*	*'000*	*Ratio*
4 largest	89.4	0.07	88.1	0.08	82.4	0.08	64.7	0.06	67.4	0.06
8 largest	135.9	0.11	117.0	0.11	103.9	0.10	93.6	0.09	106.3	0.10
12 largest	161.0	0.12	147.7	0.13	137.3	0.14	120.6	0.11	137.4	0.13
16 largest	185.1	0.14	163.9	0.14	158.5	0.15	139.5	0.13	167.3	0.16
20 largest	204.6	0.15	183.0	0.16	166.7	0.16	154.7	0.15	183.0	0.17
25 largest	229.9	0.17	201.2	0.18	194.2	0.19	181.5	0.17	202.1	0.19
50 largest	326.8	0.25	283.3	0.25	281.7	0.28	250.2	0.24	284.7	0.27
100 largest	442.3	0.33	395.8	0.35	374.0	0.37	339.4	0.32	370.9	0.35
200 largest	581.4	0.44	520.4	0.46	475.3	0.47	431.9	0.41	459.5	0.43
All enterprise groups	**1,325.6**	**1.00**	**1,132.7**	**1.00**	**1,011.6**	**1.00**	**1,063.8**	**1.00**	**1,072.6**	**1.00**

(a) Employment at end of June. Includes working proprietors.

NOTE: Data in this table exclude operations by single establishment enterprises employing fewer than four persons.

Source: Manufacturing Industry, Concentration Statistics, Australia (8207.0) and Manufacturing Industry: Details of Operations, Australia (8203.0).

CONCENTRATION OF ENTERPRISES IN MANUFACTURING IN TERMS OF EMPLOYMENT(a) BY INDUSTRY, 1988–89

	Enterprise groups ranked by turnover									
	Largest 4		*5–8*		*9–12*		*13–16*		*Remainder*	
Industry subdivision	*'000*	*Ratio*	*'000*	*Ratio*	*'000*	*Ratio*	*'000*	*Ratio*	*'000*	*Ratio*
Food, beverages and tobacco	25.9	0.15	15.4	0.09	11.4	0.06	9.1	0.05	114.5	0.65
Textiles	5.6	0.17	2.4	0.08	2.1	0.07	0.9	0.03	21.2	0.66
Clothing and footwear	12.2	0.17	3.7	0.05	2.7	0.04	1.6	0.02	53.1	0.72
Wood, wood products and furniture	6.3	0.08	2.3	0.03	2.3	0.03	1.9	0.02	71.7	0.85
Paper, paper products, printing and publishing	23.5	0.21	9.6	0.09	5.6	0.05	5.4	0.05	68.1	0.61
Chemical, petroleum and coal products	8.2	0.15	4.0	0.08	2.4	0.05	1.4	0.03	37.3	0.70
Non-metallic mineral products	15.8	0.37	5.4	0.13	3.3	0.08	1.9	0.04	16.0	0.38
Basic metal products	37.1	0.52	8.0	0.11	3.8	0.05	4.1	0.06	17.8	0.26
Fabricated metal products	10.0	0.09	7.2	0.07	4.6	0.04	1.9	0.02	84.3	0.78
Transport equipment	25.8	0.22	9.1	0.08	11.3	0.10	7.8	0.07	62.3	0.54
Other machinery and equipment	12.0	0.09	6.3	0.05	6.4	0.05	4.6	0.03	108.1	0.79
Miscellaneous manufacturing	10.6	0.16	4.3	0.06	2.0	0.03	1.7	0.03	47.5	0.72
Total manufacturing	**67.4**	**0.06**	**38.9**	**0.04**	**31.0**	**0.03**	**29.8**	**0.03**	**905.5**	**0.84**

(a) Employment at end of June. Includes working proprietors.

NOTE: Data in this table exclude operations by single establishment enterprises employing fewer than four persons.

Source: Manufacturing Industry, Concentration Statistics, Australia (8207.0) and Manufacturing Industry: Details of Operations, Australia (8203.0).

In 1988–89, the most concentrated industries, in terms of the share of employment accounted for by the largest four enterprise groups, were Basic metal products (52%) and Non-metallic mineral products (37%). The industries with the lowest levels of concentration were Wood, wood products and furniture (8%), Fabricated metal products (9%) and Other machinery and equipment (9%).

Research and experimental development

Research and experimental development (R&D) activity in the business context is systematic investigation or experimentation involving innovation or technical risk, the outcome of which is *new knowledge*, with or without a specific practical application or *new or improved* products, processes, materials, devices or services. R&D activity extends to modifications to existing products/processes.

EXPENDITURE ON RESEARCH AND EXPERIMENTAL DEVELOPMENT BY MANUFACTURING ENTERPRISES
($ million)

			1988–89			
					Type of expenditure	
Industry subdivision	*1984–85*	*1986–87*	*Total*	*Capital expenditure*	*Labour costs(a)*	*Other current expenditure*
Food, beverages and tobacco	30.9	56.7	82.7	22.7	36.1	24.0
Textiles; Clothing and footwear	5.6	12.9	7.8	1.5	3.9	2.5
Wood, wood products and furniture	3.4	6.4	9.8	1.9	4.1	3.8
Paper, paper products, printing and publishing	6.4	10.0	24.1	7.2	9.4	7.5
Chemical, petroleum and coal products	91.1	120.1	148.0	18.2	65.3	64.5
Non-metallic mineral products	12.9	15.3	22.3	5.9	8.7	7.8
Basic metal products	46.1	63.7	91.7	17.0	39.9	34.9
Fabricated metal products	15.6	23.0	25.7	3.0	13.5	9.2
Transport equipment	90.1	127.9	159.6	11.3	85.2	63.0
Photographic, professional and scientific equipment(b)	16.5	25.7	37.5	3.2	20.2	14.1
Appliances and electrical equipment(b)	84.4	174.5	228.3	28.7	128.0	71.7
Industrial machinery and equipment(b)	28.5	43.3	54.9	4.7	28.3	21.9
Miscellaneous manufacturing	8.5	21.6	26.1	3.4	14.4	8.3
Total manufacturing	**440.1**	**701.1**	**918.5**	**128.6**	**456.8**	**333.1**

(a) Includes wages and salaries, payroll tax, payments to contract staff on the payroll, fringe benefits tax and workers compensation, holiday pay, long service leave payments, sick pay, employer contributions to superannuation and pension schemes. (b) Photographic, professional and scientific equipment, Appliances and electrical equipment, and Industrial machinery and equipment comprise subdivision 33 (Other machinery and equipment) of ASIC.

Source: Research and Experimental Development, Business Enterprises, Australia (8104.0).

Business enterprises classified to the Other machinery and equipment industry (*see* footnote (b) above) accounted for 35 per cent of all manufacturing research and development expenditure in 1988–89. Transport equipment (17%) and Chemical, petroleum and coal products (16%) were also major contributors to R&D expenditure.

Expenditure on R&D by manufacturing business enterprises more than doubled between 1984–85 and 1988–89. Paper, paper products, printing and publishing (up 277%) displayed the largest percentage increase over the period, while Textiles, Clothing and footwear (up 39%) showed the least.

Commonwealth government authorities

Industry Commission

The Industry Commission is the Commonwealth Government's major review and inquiry body in industry matters. It is an advisory body with an economy-wide perspective, a broad industry charter and public inquiry processes. The principal function of the Industry Commission is to hold public inquiries and report on the industry matters referred to it. In order to ensure the widest possible scope for its inquiries, industry matters include legislative or administrative actions of the Commonwealth, States or Territories, and industry is defined to cover industry of any kind or grouping.

The Commission is required to report annually on the economic performance of industry, the principal factors affecting that performance, and the effects of assistance and regulation on industry and the economy generally. The Commission also has a role advising on business regulations and preparing occasional research and information papers that enhance community understanding of industry policy issues.

The Commission operates under general policy guidelines which are specified in the Industry Commission Act. These guidelines are cast in terms of encouraging the development of efficient industries, facilitating structural adjustment, reducing unnecessary industry regulation and recognising the interests of other industries and the community generally. In addition, the Commission must report on the social and environmental consequences of any recommendations it makes.

The legislation contains provisions similar to those in the IAC Act which constrain Commonwealth Ministers from changing certain forms of assistance without a prior report from the Commission unless Parliament passes overriding legislation. However, the Government is not obliged to accept the Commission's advice. Final responsibility for determining industry arrangements rests with the Commonwealth Government and the State and Territory Governments.

References with the Commission in early 1992 are:

- exports of education services;
- rail transport;
- the Australian dairy industry;
- greenhouse gases emission targets;
- cost recovery for fisheries management;
- availability of capital;
- exports of health services;
- the Australian sugar industry;
- review of overseas export enhancement measure;
- raw material pricing for domestic use;
- commercial restrictions on exporting (including franchising);
- water resources and waste water disposal; and
- regulation of intrastate aviation.

Other references scheduled on the work program are:

- mail, courier and parcel services;
- national procurement development program;
- implications for Australia of firms locating offshore;
- land use planning;
- horticulture;
- regional impediments to industry restructuring;
- book bounty;
- end-use by-laws for chemicals, plastics and inputs to paper and printing;
- urban public transport including rail;
- National Industry Extension Service (NIES);
- meat processing;
- Grants for Industry Research and Development (GIRD);
- workers' compensation;
- competition in the professions;
- provision of public housing;
- tobacco; and
- long-term agreements.

Bureau of Industry Economics

The Australian Government established the Bureau of Industry Economics in 1977 as a major centre for research into the manufacturing and commerce sectors. In recent years this role has been expanded to include science and technology and building issues. Formally attached to the Department of Industry, Technology and Commerce, the Bureau has professional independence in the conduct and reporting of its research.

The major objectives of the Bureau are to:

- increase community and industry understanding of economic developments and industry policy issues in the manufacturing and services sectors by conducting and publishing objective research;
- carry out applied economic research to assist the evaluation and formulation of industry policies and programs; and
- foster basic and applied economic research into industry policy issues at Australian tertiary institutions and research institutes.

The recent expansion in the Bureau's responsibilities means that its research now encompasses the full range of factors affecting the performance of the industry and commerce sectors, from infrastructural constraints and research and development through to the final marketing and distribution of products.

In order to ensure the continuing relevance of its research, the Bureau seeks suggestions from interested parties in the private and public sectors on the most pressing economic issues requiring analysis. In formulating the final research program, the Bureau has regard to the priorities of the Minister and Department, and the view of its own Council of Advice.

The members of the Council are drawn from a wide range of backgrounds, including the universities, industries and the trade union movement. In this way the Council of Advice provides a major link between the Bureau and the community. The Council assists with the development of the work of the Bureau and the effective dissemination of the results of the Bureau's work.

In addition to its research work, the Bureau provides specialist economic advice to the Department of Industry, Technology and Commerce on matters of immediate importance. The Bureau is also responsible for providing specialist macro-economic and statistical advice to the Minister and the Department.

RETAIL TRADE

Estimates of the value of retail turnover (excluding motor vehicles, parts, petrol, etc.) by industry are obtained by means of sample surveys. Retail turnover, at current prices, increased by only 2.7 per cent during 1990–91. In the previous year the increase was 7.7 per cent. This weak increase in turnover was spread across all industries.

TURNOVER OF RETAIL ESTABLISHMENTS (EXCLUDING MOTOR VEHICLES, PARTS, PETROL, ETC.) AT CURRENT PRICES

($ million)

Industry	*1988–89*	*1989–90*	*1990–91*
Grocers, confectioners, tobacconists	21,598.6	23,635.5	25,468.1
Butchers	2,044.5	2,220.4	2,237.2
Other food stores	5,085.3	5,769.2	5,938.3
Hotels, liquor stores, licensed clubs	10,768.1	11,730.9	11,985.7
Cafes and restaurants	3,590.1	4,327.6	4,295.7
Clothing and fabric stores	6,584.6	6,376.4	6,496.2
Department and general stores	9,284.8	9,726.0	9,734.1
Footwear stores	1,029.2	1,146.7	1,200.1
Domestic hardware stores, jewellers	2,852.8	2,767.8	2,591.9
Electrical goods stores	4,663.7	5,339.3	5,217.3
Furniture stores	1,735.3	1,822.2	1,828.0
Floor coverings stores	787.8	781.5	745.7
Pharmacies	2,897.6	3,324.0	3,688.8
Newsagents	2,895.8	3,166.8	3,079.8
Other stores	4,146.1	4,525.4	4,588.2
Total	**79,963.6**	**86,659.7**	**89,094.9**

Source: Retail Trade, Australia (8501.0).

TURNOVER OF RETAIL ESTABLISHMENTS (EXCLUDING MOTOR VEHICLES, PARTS, PETROL, ETC.) AT CONSTANT (AVERAGE 1984-85) PRICES
($ million)

Industry	*1988–89*	*1989–90*	*1990–91*
Grocers, confectioners, tobacconists	16,415.7	16,784.4	17,355.8
Butchers	1,613.0	1,627.6	1,621.5
Other food stores	3,527.8	3,726.1	3,775.3
Hotels, liquor stores, licensed clubs	7,943.2	8,092.6	7,738.5
Cafes and restaurants	2,697.8	3,042.1	2,854.2
Clothing and fabric stores	4,766.6	4,378.7	4,264.5
Department and general stores	6,963.0	6,970.7	6,687.8
Footwear stores	767.5	828.0	838.6
Domestic hardware stores, jewellers	2,253.2	2,143.8	1,976.4
Electrical goods stores	3,969.8	4,502.7	4,349 6
Furniture stores	1,314.2	1,291.4	1,217.0
Floor coverings stores	547.9	513.5	470.7
Pharmacies	2,229.6	2,455.5	2,554.1
Newsagents	1,936.2	2,098.1	1,935.7
Other stores	3,093.2	3,220.9	3,114.9
Total	**60,066.7**	**61,676.1**	**60,755.0**

Source: Retaile Trade, Australia (8501.0).

SERVICE INDUSTRIES

The following table provides a summary of operational characteristics of certain service industries covered in the Services Industries Surveys for 1986–87 and 1987–88.

SELECTED SERVICE INDUSTRIES: SUMMARY OF OPERATIONS 1986–87 AND 1987–88

Industry (ASIC Class)	*Enterprises operating at end June*	*Persons employed at end June*	*Wages and salaries(a)*	*Turnover*	*Gross product*	*Net operating surplus*
	no.	no.	$m	$m	$m	$m
1986–87						
Motor vehicle hire (5711)	281	3,173	54.8	446.8	102.1	20.6
Travel agency services (5741)(b)	1,494	11,632	191.5	428.8	207.2	–0.2
Motion picture theatres (9133)	202	4,472	56.6	256.5	96.2	29.2
Cafes and restaurants (9231)	8,489	85,974	646.7	2,583.9	942.2	221.5
Hotels and bars (9232)	4,986	82,644	814.8	4,807.6	1,270.0	370.5
Accommodation (9233)	4,841	56,364	640.3	2,281.5	1,078.8	310.7
Licensed clubs (9241–3)	3,927	52,336	687.8	2,636.1	1,059.4	229.0
Laundries and dry cleaners (9340)(c)	1,581	12,452	142.0	400.1	228.4	52.6
Hairdressers and beauty salons (9351–2)	11,027	39,628	300.0	790.0	433.0	113.1
Photography services (9361)	1,547	4,290	36.5	183.3	67.6	23.3

For footnotes *see* end of table.

SELECTED SERVICE INDUSTRIES: SUMMARY OF OPERATIONS
1986–87 AND 1987–88 — *continued*

Industry (ASIC Class)	*Enterprises operating at end June*	*Persons employed at end June*	*Wages and salaries(a)*	*Turnover*	*Gross product*	*Net operating surplus*
	no.	no.	$m	$m	$m	$m
1987–88						
Real estate agents (6310)	5,741	42,196	835	2,201	1,262	356
Architectural services (6334)	4,534	17,717	354	1,030	584	185
Surveying services (6335)	1,104	6,872	116	309	178	46
Engineering and technical services (6336)(d)	5,190	28,326	682	1,716	1,000	223
Legal services (6371)	6,459	55,363	500	3,069	1,427	884
Accounting services (6372)	6,048	49,479	503	2,334	1,050	497
Computing services (6381)	3,691	24,067	585	1,628	775	78
Advertising services (6382)	2,390	16,048	423	4,675	619	147
Debt collecting and credit reporting services (6385)	234	2,658	52	142	69	12
Pest control services (6386)	565	2,902	44	135	76	25
Cleaning services (6387)(e)	4,181	44,322	330	622	434	81
Security/protection and business services n.e.c. (6388 and 6389)(f)	1,087	25,483	365	839	515	120

(a) Gross earnings of all employees before taxation and other deductions. Drawings of working proprietors and partners are excluded. (b) Includes Australian branch offices of foreign resident airlines and the travel agency divisions of the major financial institutions (mainly banks). (c) Excludes carpet cleaning services. (d) Includes quantity surveyors. (e) Includes carpet cleaning services. (f) Excludes quantity surveyors.

Source: ABS Service Industry survey publications (8652.0 to 8660.0 and 8663.0 to 8673.0).

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Manufacturing Industry, Concentration Statistics, Australia (8207.0)

Manufacturing Industry: Details of Operations, Australia (8203.0)

Manufacturing production bulletins (8357.0–8363.0, 8367.0 and 8368.0)

Motion Picture Theatre Industry, Australia, 1986–87 (8654.0)

Motor Vehicle Hire Industry, Australia, 1986–87 (8652.0)

Pest Control Services, Australia, 1987–88 (8671.0)

Photography Services Industry, Australia, 1986–87 (8660.0)

Price Indexes of Articles Produced by Manufacturing Industry, Australia (6412.0)

Private New Capital Expenditure, Australia, Actual and Expected Expenditure (5626.0)

Quarterly Indexes of Industrial Production, Australia (8125.0)

Real Estate Agents, Australia, 1987–88 (8663.0)

Research and Experimental Development, Business Enterprises, Australia (8104.0)

Retail Industry: Details of Operations, Australia (8622.0)

Retail Trade, Australia (8501.0)

Retailing in Australia (8628.0)

Security/Protection and Other Business Services Industries, Australia, 1987–88 (8673.0)

Selected Service Industries, Australia, Preliminary (8650.0)

Surveying Services, Australia, 1987–88 (8665.0)

Travel Agency Services Industry, Australia, 1986–87 (8653.0)

Wholesale Establishments: Details of Operation by Industry Class, Australia (8638.0)

FOR MORE INFORMATION

The ABS has a far wider range of information on Australia than that contained in the *Year Book*. Information is available in the form of regular publications, electronic data services, special tables and from investigations of published and unpublished data.

For further information contact ABS Information Services at one of the addresses listed on the page facing the Introduction to the *Year Book*.

Chapter Twenty-one

Prices

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Prices are a key factor in the operation of the economy, and the indexes which measure movements in the various categories of prices are used extensively by a wide range of users who need to be aware of and to analyse price movements. This chapter provides an outline of various price indexes, their history, and their underlying concepts and methodology, more details of which are contained in the source publications referred to throughout the chapter and in the bibliography.

CONSUMER PRICE INDEX

The Consumer Price Index (CPI) measures quarterly changes in the retail price of a 'basket' of goods and services which account for a high proportion of expenditures by metropolitan wage and salary earner households. This 'basket' covers a wide range of goods and services arranged in the following eight groups: food; clothing; housing; household equipment and operation; transportation; tobacco and alcohol; health and personal care; and recreation and education. The eight groups in turn are divided into 35 sub-groups and 107 expenditure classes.

Retail prices of food and groceries and average rentals of houses have been collected by the Australian Bureau of Statistics for the years extending back to 1901 and, in some cases, by the statistical offices of various States for earlier years.

Retail prices of a more extensive range of commodities (including clothing) and certain services in common demand have been collected at frequent and regular intervals since 1923. (Comparable information was collected for the month of November in each year from 1914 to 1922.) The range of items for which retail prices data are obtained was considerably expanded in 1948 and in later years. Average retail prices of certain food and grocery items in the relevant periods were published in the annual *Labour Report* (now discontinued). An historical perspective giving more detail of these earlier indexes was published in *Year Book Australia 1988*.

From its inception in 1960, the CPI covered the six State capital cities. In 1964 the geographical coverage of the CPI was extended to include Canberra. From June quarter 1982 geographic coverage was further extended to include Darwin.

Index numbers at the Group and All Groups levels are published for each capital city and for the weighted average of eight capital cities. Sub-group index numbers are published for the weighted average of eight capital cities. Expenditure class index numbers are available for each city plus the weighted average of eight capital cities.

CONSUMER PRICE INDEX: ALL GROUPS INDEX NUMBERS
(Base of each index: Year 1980–81 = 100.0)(a)

Year	*Sydney*	*Mel-bourne*	*Brisbane*	*Adelaide*	*Perth*	*Hobart*	*Canberra*	*Darwin*	*Weighted average of eight capital cities*
1979–80	91.1	91.4	91.5	91.6	91.9	91.6	91.1	. .	(b)91.4
1980–81	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1981–82	110.2	110.4	110.7	110.5	111.2	110.0	110.7	111.1	110.4
1982–83	123.4	122.8	122.9	123.5	122.5	121.8	124.0	123.1	123.1
1983–84	130.9	132.1	131.7	132.3	131.0	129.9	132.3	130.2	131.6
1984–85	136.0	138.1	137.9	138.7	136.1	136.1	138.8	135.1	137.2
1985–86	147.5	149.8	149.0	150.2	147.1	147.9	150.8	146.2	148.7
1986–87	161.4	163.9	161.8	164.0	161.8	162.5	163.4	159.3	162.6
1987–88	173.7	175.9	173.1	175.0	173.3	174.4	174.7	170.6	174.5
1988–89(c)	187.7	187.9	185.4	187.8	186.1	185.3	186.4	178.9	187.3
1989–90	203.0	203.6	199.3	201.2	201.7	198.3	200.2	190.0	202.3
1990–91	213.0	215.3	209.1	213.6	211.9	208.0	210.4	200.8	213.0

(a) The separate city indexes measure price movements within each city individually. They do not compare price levels between cities. (b) Prior to 1980–81 index numbers are for weighted average of six State capital cities. (c) These series have been affected by a change in the treatment of mortgage interest charges from March Quarter 1989.

Source: Consumer Price Index (6401.0).

CONSUMER PRICE INDEX: GROUP INDEX NUMBERS
WEIGHTED AVERAGE OF EIGHT CAPITAL CITIES
(Base of each index: Year 1980–81 = 100.0 unless otherwise noted)

Year	*Food*	*Clothing*	*Housing*	*Household equipment and operation*	*Transport-ation*	*Tobacco and alcohol*	*Health and personal care*	*Recreation and educ-ation (a)*	*All groups*
1979–80(b)	90.6	93.3	91.0	90.0	91.3	93.6	91.1	. .	91.4
1980–81	100.0	100.0	100.0	100.0	100.0	100.0	100.0	. .	100.0
1981–82	108.6	107.1	111.1	110.6	110.3	109.2	124.2	. .	110.4
1982–83	118.5	114.2	122.8	123.8	124.2	124.1	153.2	107.7	123.1
1983–84	127.7	120.9	131.5	132.6	134.8	139.6	146.5	114.5	131.6
1984–85	134.4	128.4	141.4	138.9	143.4	151.3	121.8	118.9	137.2
1985–86	144.7	139.0	153.4	150.2	155.5	165.1	133.0	129.5	148.7
1986–87	156.3	152.3	164.8	161.2	172.9	182.5	154.4	141.5	162.6
1987–88	164.5	164.2	176.2	172.4	186.4	197.8	171.9	152.6	174.5
1988–89(c)	179.9	175.9	198.4	182.2	193.7	209.1	186.3	162.1	187.3
1989–90	192.7	185.0	228.2	192.2	209.2	226.4	199.7	172.1	202.3
1990–91	199.0	193.5	236.3	201.9	223.5	246.3	218.9	180.7	213.0

(a) Base: March quarter 1982 = 100.0. Group index not compiled for earlier quarters. (b) Prior to 1980–81 index numbers are for weighted average of six State capital cities. (c) Series for Housing and All groups have been affected by a change in the treatment of mortgage interest charges from March Quarter 1989.

Source: Consumer Price Index (6401.0).

Conceptual basis for measuring price changes

The CPI is a quarterly measure of the change in average retail price levels. It provides a method of comparing the average price level for a quarter with the average price level of the reference base year or changes in the average price level from one quarter to the next. In measuring price changes, the CPI aims to measure only pure price changes (i.e., price changes excluding the effects of any changes in the quality or quantity of the goods or services concerned) — in other words to measure, each quarter, the change in the cost of purchasing an identical basket of goods and services. The CPI is a measure of changes in transaction prices — the prices actually paid by consumers for the goods and services they buy. It is not concerned with nominal, recommended or list prices (unless they are the prices consumers actually pay).

The CPI is often loosely, and incorrectly, referred to as a cost-of-living index. However, a true cost-of-living index (if such a measure could be compiled) would not be the same thing as a fixed-weight retail price index like the CPI. A cost-of-living index would need to take account of changes in standards of living and the substitutions that consumers make in response to changing market conditions, such as changes in supply, or in response to disparate price movements.

The CPI measures price change over time and does not provide comparisons between relative price levels at a particular date. For example, it does not show whether beef is dearer than lamb, or whether bus fares are dearer than train fares. The fact that the index number for any particular component is higher than that for another component in a particular quarter does not mean that the first component is more expensive than the second — it merely means that, since the reference base year, prices for the first component have risen more than prices for the second component. Similarly, the CPI does not provide any basis for measuring relative price levels between the different cities. For example, it says nothing about whether prices are higher in Sydney or Perth — it shows only whether prices have changed more in Sydney or in Perth.

Index population

Because the spending patterns of various groups in the population differ somewhat, the pattern of one large group, fairly homogeneous in its spending habits, is chosen for the purpose of calculating the CPI. The CPI population group is, in concept, metropolitan employee households. For this purpose employee households are defined as those households which obtain the major part of their household income from wages and salaries; metropolitan means the eight capital city Statistical Divisions.

Weighting pattern

Each of the 107 expenditure classes in the current CPI has a fixed weight (i.e., the measure of its relative importance). Details of the weighting pattern are shown in the following table.

Changes in the weighting pattern have been made at approximately five-yearly intervals to take account of changes in household spending patterns. The CPI, in fact, comprises eleven separate series which have been linked to form a continuous series. The eleventh series (i.e., the current series) was introduced in the March quarter 1987, with a weighting pattern based on estimated household expenditure in 1984. The twelfth series is to be introduced in the September quarter 1992, with a weighting pattern based on estimated household expenditure in 1988–89.

The CPI 'basket of goods and services' covers items which are considered representative of metropolitan households' spending habits and whose prices can be associated with an identifiable and specific quantity of a commodity or service. Income taxes and personal savings, on the other hand, do not form part of the CPI because they cannot be clearly associated with the purchase of a specific quantity of any goods or services.

CONSUMER PRICE INDEX — ELEVENTH SERIES: WEIGHTING PATTERN AT DECEMBER QUARTER 1986 WEIGHTED AVERAGE OF EIGHT CAPITAL CITIES

Groups and sub-groups	*Percentage contribution to the all groups CPI*
Food	**19.013**
Dairy products	1.536
Cereal products	1.978
Meat and seafoods	3.495
Fresh fruit and vegetables	1.921
Processed fruit and vegetables	0.852
Soft drinks, ice cream and confectionery	2.829
Meals out and take away foods	4.671
Other food	1.731
Clothing	**6.898**
Men's and boys' clothing	1.952
Women's and girls' clothing	3.102
Fabrics and knitting wool	0.499
Footwear	1.107
Dry cleaning and shoe repairs	0.238
Housing	**14.062**
Rents	4.450
Home ownership	9.612
Household equipment and operation	**18.429**
Fuel and light	2.442
Furniture and floor coverings	4.115
Appliances	1.535
Household textiles	0.690
Household utensils and tools	1.748
Household supplies and services	3.918
Postal and telephone services	1.478
Consumer credit charges	2.503
Transportation	**17.015**
Private motoring	16.069
Urban transport fares	0.956

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CONSUMER PRICE INDEX — ELEVENTH SERIES: WEIGHTING PATTERN AT DECEMBER QUARTER 1986 WEIGHTED AVERAGE OF EIGHT CAPITAL CITIES — *continued*

Groups and sub-groups	*Percentage contribution to the all groups CPI*
Tobacco and alcohol	**8.173**
Alcoholic drinks	5.955
Cigarettes and tobacco	2.218
Health and personal care	**5.596**
Health services	2.992
Personal care products	1.943
Hairdressing services	0.661
Recreation and education	**10.804**
Books, newspapers and magazines	1.229
Recreational goods	2.877
Holiday travel and accommodation	3.135
Recreational services	2.305
Education and child care	1.258
Total all groups	**100.000**

Source: A Guide to the Consumer Price Index, Australia (6440.0).

Collecting prices

Since the CPI is designed to measure the impact of changing prices on metropolitan wage and salary earner households, price movements are monitored in the kinds of retail outlets or other establishments where such households normally purchase goods and services. This involves collecting prices from many sources including supermarkets, department stores, footwear stores, restaurants, motor vehicle dealers and service stations, dental surgeries, hotels and clubs, schools, hairdressers, travel agents, airlines, bus operators, house builders, real estate developers, electricians and plumbers. Items such as bus, rail and air fares, electricity and gas charges, telephone charges and local authority rates are collected from the appropriate authorities. Information on rents is obtained from property management companies and government housing authorities. In total, around 100,000 separate price quotations are collected each quarter.

Prices of the goods and services included in the CPI are generally collected quarterly. However, some important items are priced monthly or more frequently (e.g., bread, fresh meat and fish, fresh fruit and vegetables, petrol, alcohol and tobacco) and a small number are collected annually (e.g., seasonal clothing, local government rates and charges).

The prices used in the CPI are those that any member of the public would have to pay on the pricing day to purchase the specified good or service. Any sales or excise taxes which the consumer must pay when purchasing specific items are included in the CPI price. Sale prices, discount prices and 'specials' are reflected in the CPI so long as the items concerned are of normal quality (i.e., not damaged or shop soiled) and are offered for sale in reasonable quantities. To ensure that the price movements reflect the experience of the bulk of the metropolitan population, the brands and the varieties of the items which are priced are generally those which sell in greatest volume.

Periodic revision of the CPI

The CPI is periodically revised in order to ensure it continues to reflect current conditions. CPI revisions have usually been carried out at approximately five-yearly intervals, the most recent to be completed in September 1992. Previous revisions of the CPI were introduced at: December quarter 1963; December quarter 1968; December quarter 1973; September quarter 1974; September quarter 1976; March quarter 1982; and March quarter 1987. Following each revision, the new series, with its changed composition and weighting pattern, is linked to the previous series to form one continuous series. The process of linking ensures that the continuous series reflects only price variations and not differences in costs of the old and new baskets.

Changes in quality

Since the CPI aims to measure the price change of a constant basket of goods and services over time it is necessary to ensure that identical or equivalent items are priced in successive time periods. This involves evaluating changes in the quality of goods and services included in the index and removing the effects of such changes so that the index reflects only the price change.

Long-term linked series

To provide an approximate long-term measure of retail price change for the period since the first Australian retail price index was compiled, a single series of index numbers has been constructed by linking together selected retail price index series. The index numbers are expressed on a reference base 1945 = 100, which was the end of a period of relative price stability during World War II. The successive series linked together to produce this long-term series of index numbers are:

- from 1901 to 1914, the A Series Index;
- from 1914 to 1946–47, the C Series Index;
- from 1946–47 to 1948–49, a combination of the C Series Index (excluding rent) and the housing group of the CPI; and
- from 1948–49 onwards, the CPI.

RETAIL PRICE INDEX NUMBERS(a), LONG-TERM LINKED SERIES
(Base: Year 1945 = 100)

Year	*Index number*	*Year*	*Index number*	*Year*	*Index number*
1901	47	1931	78	1961	252
1902	50	1932	74	1962	251
1903	49	1933	71	1963	252
1904	46	1934	73	1964	258
1905	48	1935	74	1965	268
1906	48	1936	75	1966	276
1907	48	1937	78	1967	286
1908	51	1938	80	1968	293
1909	51	1939	82	1969	302
1910	52	1940	85	1970	313
1911	53	1941	89	1971	332
1912	59	1942	97	1972	352
1913	59	1943	101	1973	385
1914	61	1944	100	1974	443
1915	70	1945	100	1975	510
1916	71	1946	102	1976	579
1917	75	1947	106	1977	650
1918	80	1948	117	1978	702
1919	91	1949	128	1979	766
1920	103	1950	140	1980	844
1921	90	1951	167	1981	926
1922	87	1952	196	1982	1,028
1923	89	1953	205	1983	1,132
1924	88	1954	206	1984	1,177
1925	88	1955	211	1985	1,257
1926	90	1956	224	1986	1,370
1927	89	1957	229	1987	1,487
1928	89	1958	233	1988	1,594
1929	91	1959	237	1989	1,714
1930	87	1960	245	1990	1,839

(a) The index numbers relate to the weighted average of six State capital cities up to 1980; from 1981 they relate to the weighted average of eight capital cities.
Source: Labour Report.

Comparison with other countries

The following table provides a comparison of the Australian CPI with that of selected other countries.

CONSUMER PRICE INDEX NUMBERS: AUSTRALIA AND OTHER COUNTRIES(a)
(Base of each index: Year 1980 = 100.0)

Period	*Australia (b)*	*Canada*	*Federal Republic of Germany (c)*	*Indonesia*	*Japan*	*New Zealand*	*United Kingdom*	*United States of America*
Year								
1984	140	138	118	152	112	153	133	126
1985	149	143	121	159	115	176	142	131
1986	162	149	121	168	115	200	146	133
1987	176	156	121	184	115	231	152	138
1988	189	162	123	199	116	246	160	144
1989	203	170	126	211	119	260	172	151
1990	218	178	130	113	123	276	189	159
Quarter								
1988								
Sept.	191	163	123	201	116	244	161	145
Dec.	195	164	123	203	117	250	165	146
1989								
Mar.	196	166	125	206	117	252	167	148
June	201	169	126	211	119	255	172	150
Sept.	206	172	126	213	119	264	173	151
Dec.	210	173	127	215	120	267	177	153
1990								
Mar.	213	176	128	219	120	270	180	155
June	217	178	129	(c)110	122	275	189	157
Sept.	218	179	130	115	123	277	192	160
Dec.	224	181	131	117	125	280	195	162

(a) The composition of these indexes varies considerably in the various countries. The index numbers show changes in prices in each country over time and do not measure relative price levels between countries. (b) Consumer Price Index (All Groups) converted to base: 1980 = 100.0. (c) Base : 1990 = 100.

Source: Monthly Bulletin of Statistics of the Statistical Office of the United Nations.

Other consumer price indexes

Indexes of relative retail prices of food

Since 1962 the ABS has conducted an annual survey of food prices in selected cities and towns throughout Australia. Information from this survey is used to compile index numbers measuring the relative levels of food prices in the different localities at the time the survey is conducted (currently in May each year). The index numbers are produced by combining the prices for the selected food items using a common set of weights (derived from the weighting pattern of the CPI Food Group). The resulting index numbers are expressed on the base: weighted average of Eight Capital Cities = 100.

Index numbers for localities in the States are available from the ABS on request.

House price indexes

House price indexes are compiled for established houses and project homes for use in calculating the mortgage interest charges component of the CPI. These indexes are contained in the chapter, Construction and Housing.

PRODUCER PRICE INDEXES

The first price index of this kind compiled by the ABS was the Melbourne Wholesale Price Index which was introduced in 1912 with index numbers compiled back to 1861 from prices extracted from newspapers and trade publications. Index numbers were compiled up to 1961. The index related chiefly to basic materials and foods weighted in accordance with consumption in about the year 1910.

The next index published was the Wholesale Price (Basic Materials and Foodstuffs) Index which was introduced in 1939; index numbers are available for the period 1928 to 1970. The index related to commodities in their basic or primary form and prices were obtained as near as possible to the point where they made their first effective impact on the local price structure. With few exceptions, prices were obtained from Melbourne sources.

The present range of producer price indexes was developed and produced progressively from the 1960s. The current indexes relate to the building industry, manufacturing industry, and (not included in this chapter) the mining industry.

The following table draws on these producer and wholesale price indexes to provide a broad indication of long-term price change. The indexes are given on a common reference base of 1968–69 = 100.0.

PRODUCER AND WHOLESALE PRICE INDEXES
(Reference base: Year 1968–69 = 100.0)

	Melbourne Wholesale Price Index (All Groups)	*Wholesale Price (Basic Materials and Foodstuffs) Index (All Groups)*	*Price Index of Materials Used in House Building (All Groups)*	*Price Index of Materials Used in Building Other than House Building (All Groups)*	*Price Indexes of Materials Used in Manufacturing Industries (Manufacturing Division)*	*Price Indexes of Articles Produced by Manufacturing Industry (Manufacturing Division)*
1861	24.2	. .	. .	. .	. .	. .
1871	19.3	. .	. .	. .	. .	. .
1881	17.6	. .	. .	. .	. .	. .
1891	14.9	. .	. .	. .	. .	. .
1901	15.3	. .	. .	. .	. .	. .
1911	15.7	. .	. .	. .	. .	. .
1921	30.0	. .	. .	. .	. .	. .
1928–29	28.3	28.3	. .	. .	. .	. .
1931–32	. .	24.4	. .	. .	. .	. .
1936–37	. .	25.5	. .	. .	. .	. .
1941–42	. .	31.9	. .	. .	. .	. .
1946–47	. .	37.0	. .	. .	. .	. .
1951–52	. .	37.0	. .	. .	. .	. .
1956–57	. .	76.4	. .	. .	. .	. .
1960–61	. .	92.5	. .	. .	. .	. .
1961–62	. .	86.4	. .	. .	. .	. .
1962–63	. .	87.4	. .	. .	. .	. .
1963–64	. .	90.0	. .	. .	. .	. .
1964–65	. .	91.3	. .	. .	. .	. .
1965–66	. .	95.4	. .	. .	. .	. .
1966–67	. .	98.4	94.1	94.7	. .	. .
1967–68	. .	99.7	96.6	96.8	. .	. .
1968–69	. .	100.0	100.0	100.0	100.0	100.0
1969–70	. .	101.3	104.3	104.6	102.6	103.9

... continued

PRODUCER AND WHOLESALE PRICE INDEXES
(Reference base: Year 1968–69 = 100.0) — *continued*

	Melbourne Wholesale Price Index (All Groups)	*Wholesale Price (Basic Materials and Foodstuffs) Index (All Groups)*	*Price Index of Materials Used in House Building (All Groups)*	*Price Index of Materials Used in Building Other than House Building (All Groups)*	*Price Indexes of Materials Used in Manufacturing Industries (Manufacturing Division)*	*Price Indexes of Articles Produced by Manufacturing Industry (Manufacturing Division)*
1970–71	. .	. .	108.8	109.4	100.1	108.5
1971–72	. .	. .	115.4	116.5	102.6	113.9
1972–73	. .	. .	123.3	122.1	113.9	120.7
1973–74	. .	. .	142.3	138.1	134.7	134.6
1974–75	. .	. .	172.5	169.7	145.1	158.1
1975–76	. .	. .	195.8	195.3	158.6	177.8
1976–77	. .	. .	219.1	218.1	182.2	196.9
1977–78	. .	. .	237.1	236.5	198.5	213.8
1978–79	. .	. .	252.2	253.9	248.8	237.4
1979–80	. .	. .	284.9	286.9	321.8	274.9
1980–81	. .	. .	323.6	323.9	353.2	305.2
1981–82	. .	. .	355.3	359.8	358.9	328.9
1982–83	. .	. .	389.0	400.6	388.0	360.2
1983–84	. .	. .	419.2	422.7	402.1	382.8
1984–85	. .	. .	452.4	446.2	422.2	404.8
1985–86	. .	. .	484.6	481.8	442.9	430.3
1986–87	. .	. .	512.7	519.0	445.0	458.5
1987–88	. .	. .	551.7	564.7	470.3	492.1
1988–89	. .	. .	611.3	616.6	477.5	526.0
1989–90	. .	. .	658.4	665.3	502.4	559.9
1990–91	. .	. .	688.7	699.2	522.7	584.6

Source: Labour Report; Price Index of Materials Used in Building Other than House Building, Eight Capital Cities (6407.0); Price Index of Materials Used in House Building, Six State Capital Cities and Canberra (6408.0); Price Indexes of Materials Used in Manufacturing Industries, Australia (6411.0); Price Indexes of Articles Produced by Manufacturing Industry, Australia (6412.0).

A description of the main producer price indexes is given below. In addition to the figures contained in the various ABS producer and foreign trade publications, a large volume of unpublished figures is available on request. These price indexes are used by both the government and private sectors for applications such as adjusting business contracts. They are also used extensively for economic analysis.

Price Index of Materials Used in House Building

The Price Index of Materials Used in House Building measures changes in prices of selected materials used in the construction of houses in each capital city Statistical Division. It was first compiled on a reference base of 1966–67 = 100.0, using a weighting pattern derived from estimated material usage in 1968–69. Monthly index numbers on a 1966–67 = 100.0 reference base are available for the period July 1966 to September 1986.

The current indexes for the six State capital cities were introduced in October 1986 on a reference base of 1985–86 = 100.0 and were linked to the previous series. The items were selected and allocated weights on the basis of the estimated values of each material used in a sample of representative houses constructed in 1985–86. The index for Canberra was introduced in respect of February 1988 on a reference base of 1986–87 = 100.0.

PRICE INDEX OF MATERIALS USED IN HOUSE BUILDING
SIX STATE CAPITAL CITIES AND CANBERRA(a)
(Base of each index: Year 1985–86 = 100.0)

Year(b)	*Weighted average of six State capital cities*	*Sydney*	*Melbourne*	*Brisbane*	*Adelaide*	*Perth*	*Hobart*	*Canberra*
1983–84	86.0	85.8	88.7	85.4	87.9	83.1	86.5	n.a.
1984–85	93.1	93.3	94.6	92.7	93.4	92.5	93.4	n.a.
1985–86	100.0	100.0	100.0	100.0	100.0	100.0	100.0	n.a.
1986–87	105.8	106.2	105.7	104.6	105.1	106.7	105.0	100.0
1987–88	113.8	114.8	114.3	112.0	110.8	114.2	110.7	109.7
1988–89	126.1	128.4	125.8	123.8	120.9	128.1	120.0	121.0
1989–90	135.8	139.1	133.5	134.1	129.7	140.8	128.0	130.5
1990–91	142.1	145.7	138.1	141.9	136.2	148.7	134.2	136.4

(a) The separate city indexes measure price movement within each city individually. They do not compare price levels between cities. (b) The index series for years prior to 1985–86 are based on the series previously published on a reference base 1966–67 = 100.0. They have been converted to reference base 1985–86 = 100.0 by linking the old and new series at September 1986.

Source: Price Index of Materials Used in House Building, Six State Capital Cities and Canberra (6408.0).

Price Index of Materials Used in Building Other than House Building

The Price Index of Materials Used in Building Other than House Building measures changes in prices of selected materials used in the construction of buildings other than houses in metropolitan areas. The types of building directly represented in the index are:

- flats and other dwellings;
- hotels, motels and hostels;
- shops;
- factories;
- offices;
- other business premises;
- education buildings;
- health buildings; and
- other non-residential buildings.

It was first compiled on a reference base of 1966–67 = 100.0 using a weighting pattern derived from estimated materials usage in 1966–67. Monthly index numbers for this first series are available for the period July 1966 to January 1981.

The current indexes for the six State capital cities were introduced in February 1981 on a reference base of 1979–80 = 100.0. Its composition reflects the usage of materials in the construction of buildings (other than houses) commenced in the three years ending June 1977. An index for Darwin was published for the first time in September 1982 on a reference base of 1981–82 = 100.0 and an index for Canberra was introduced in November 1987 on a reference base of 1986–87 = 100.0.

PRICE INDEX OF MATERIALS USED IN BUILDING OTHER THAN HOUSE BUILDING
EIGHT CAPITAL CITIES(a)
(Base of each index: Year 1979–80 = 100.0)

	Weighted average of six State capital cities	*Sydney*	*Melbourne*	*Brisbane*	*Adelaide*	*Perth*	*Hobart*	*Darwin (b)*	*Canberra (c)*
1985–86	167.9	167.4	165.2	169.6	174.9	168.1	167.2	131.1	n.a.
1986–87	180.9	181.0	177.8	179.7	187.9	183.9	177.9	139.6	100.0
1987–88	196.8	197.5	192.6	194.4	204.7	201.5	188.9	149.3	111.5
1988–89	214.9	214.7	211.6	213.7	220.7	221.8	204.7	161.7	122.3
1989–90	231.9	231.3	227.8	233.9	237.1	240.0	216.8	171.9	132.2
1990–91	243.7	244.2	238.0	245.2	249.6	253.2	225.2	181.1	140.4

(a) The separate city indexes measure price movements within each city individually. They do not compare price levels between cities. (b) 1981–82 = 100.0. (c) 1986–87 = 100.0.

Source: Price Index of Materials Used in Building Other than House Building, Eight Capital Cities (6407.0).

PRICE INDEX OF MATERIALS USED IN BUILDING OTHER THAN HOUSE BUILDING
INDEX NUMBERS FOR SELECTED BUILDING MATERIALS
WEIGHTED AVERAGE OF SIX STATE CAPITAL CITIES
(Base of each index: Year 1979–80 = 100.0)

	Structural timber	*Clay bricks*	*Ready mixed concrete*	*Galvanised steel decking cladding and sheet products*	*Structural steel*	*Reinforcing steel bar fabric and mesh*
1985–86	172.2	173.7	162.6	157.1	158.0	156.8
1986–87	178.6	183.0	167.7	166.8	170.9	165.8
1987–88	184.2	193.7	175.6	181.5	186.2	176.2
1988–89	208.2	221.2	193.7	199.6	204.3	193.1
1989–90	221.1	245.7	210.3	221.3	219.0	210.3
1990–91	226.8	254.4	230.1	232.8	223.4	223.8

	Aluminium windows	*Conductors (mains cable and circuitry)*	*Lamps and light fittings*	*Non-ferrous pipes*	*Builders' hardware*	*Paint*
1985–86	162.4	197.0	164.0	134.5	182.2	189.3
1986–87	174.2	216.3	180.4	142.4	200.9	201.9
1987–88	192.1	301.3	193.5	183.3	214.7	208.9
1988–89	210.0	369.7	206.2	209.7	235.6	228.4
1989–90	223.8	447.7	211.2	215.6	252.2	254.1
1990–91	227.9	511.7	210.9	220.0	264.5	275.7

Source: Price Index of Materials Used in Building Other Than House Building, Eight Capital Cities (6407.0).

Price Indexes of Materials Used in Manufacturing Industries

These indexes measure changes in prices of materials (including fuels) used by establishments classified to the Manufacturing Division of the Australian Standard Industrial Classification (ASIC), 1983 edition.

Separate price indexes are published for materials used in Manufacturing Industry as a whole, for 14 separate Manufacturing *sectors* (defined in terms of ASIC Subdivisions or ASIC Groups) and for selected groups of materials classified according to whether the material is home produced or imported.

The indexes are compiled and published on a *net sector basis*, that is, each index includes only those materials which are used in the defined sector of Australian manufacturing industry and which have been produced by establishments outside that sector.

The indexes were first compiled on a reference base of 1968–69 = 100.0, using a weighting pattern derived from estimated manufacturing usage in 1971–72. Monthly index numbers for this first series are available for the period July 1968 to November 1985.

The current indexes were introduced in December 1985 on a reference base of 1984–85 = 100.0. With a few exceptions the items included in the indexes were allocated weights in accordance with the estimated value of manufacturing usage in 1977–78.

PRICE INDEXES OF MATERIALS USED IN MANUFACTURING INDUSTRIES(a)
SELECTED CATEGORIES OF MATERIALS
(Base of each index: Year 1984–85 = 100.0)

	Imported materials				*Home produced materials*				
	Agricultural	*Mining*	*Manufactured*	*Total imported materials*	*Agricultural, forestry and fishing*	*Mining*	*Electricity*	*Total home produced materials*	*All materials*
1985–86	117.3	91.5	117.7	111.8	100.6	101.4	102.9	101.2	104.9
1986–87	126.0	68.9	131.7	117.3	109.3	89.3	107.4	99.1	105.4
1987–88	106.5	67.9	136.4	120.0	118.3	96.3	112.3	106.8	111.4
1988–89	95.3	56.7	135.8	116.5	131.0	93.6	118.3	111.3	113.1
1989–90	85.5	66.1	139.5	121.1	134.0	103.5	123.6	117.9	119.0
1990–91	83.5	79.7	140.3	124.7	126.9	119.1	128.9	123.3	123.8

(a) The index is on a net basis and relates in concept only to materials that enter Australian manufacturing industry from other sectors of the Australian economy or from overseas.

Source: Price Indexes of Materials Used in Manufacturing Industries, Australia (6411.0).

Price Indexes of Articles Produced by Manufacturing Industry

These indexes measure movements in the prices of articles produced by manufacturing industry. For the purpose of the index, manufacturing industry is defined to be establishments classified to the Manufacturing Division of the ASIC, 1983 edition.

The indexes are constructed on a *net sector* basis. This approach means that:

- The All Manufacturing Industry Index represents price movements of goods which are produced by establishments in the Manufacturing Division, for sale or transfer to establishments outside the Manufacturing Division, for export, or for use as capital equipment. Articles which are sold or transferred to other establishments within manufacturing industry for further processing or for use as inputs are excluded.
- The net subdivision indexes for each of the manufacturing subdivisions represent movements in prices of goods produced by establishments in the respective subdivisions, for sale or transfer to other subdivisions within manufacturing or to establishments outside the Manufacturing Division, for export, or for use as capital equipment. Sales or transfers to establishments within the subdivision are excluded.

The indexes were first published in June 1976 on a reference base of 1968–69 = 100.0, with indexes compiled retrospectively to July 1968. The composition and weighting patterns of the indexes were based on the value of production in 1971–72.

The current indexes were introduced from May 1990. The composition and weighting pattern is based on the value of production in 1986–87 and are on a reference base of 1988–89 = 100.0.

PRICE INDEXES OF ARTICLES PRODUCED BY MANUFACTURING INDUSTRY(a)
(Base of each index: Year 1988–89 = 100.0)

		Net subdivision indexes						
Year	*All Manufacturing Industry Index*	*Food, beverages and tobacco (21)*	*Textiles (23)*	*Clothing and footwear (24)*	*Wood, wood products and furniture (25)*	*Paper, paper products and printing (26)*	*Chemicals and chemical products (275 & 276)*	*Petroleum products (277 & 278)*
1985–86	81.8	82.0	75.5	80.6	79.5	82.4	n.a.	n.a.
1986–87	87.2	88.1	83.1	87.1	85.3	89.6	n.a.	n.a.
1987–88	93.6	93.4	94.6	92.9	91.3	95.9	n.a.	n.a.
1988–89	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1989–90	106.5	106.9	103.2	107.3	107.6	104.3	104.4	118.4
1990–91	111.2	109.5	103.4	112.0	112.7	111.0	109.3	150.1

Year	*Non-metallic mineral products (28)*	*Basic metal products (29)*	*Fabricated metal products (31)*	*Transport equipment (32)*	*Other machinery and equipment (33)*	*Miscellaneous manufacturing products (34)*
1985–86	82.1	76.1	82.7	74.3	80.7	78.0
1986–87	86.5	81.1	87.7	85.4	86.9	85.2
1987–88	92.1	90.5	92.5	93.9	93.7	93.7
1988–89	100.0	100.0	100.0	100.0	100.0	100.0
1989–90	108.7	105.6	107.9	105.6	104.2	103.7
1990–91	117.2	106.2	113.7	109.9	107.0	106.4

(a) For a full description of Division C, 'Manufacturing' and the subdivisions within the Manufacturing Division, *see Australian Standard Industrial Classification (ASIC)* (1201.0), 1983 edition.

Source: Price Indexes of Articles Produced by Manufacturing Industry, Australia (6412.0).

FOREIGN TRADE PRICE INDEXES

The first index of export prices was compiled annually from 1901 to 1916–17 as a current weighted unit value index.

The method of calculation was changed in 1918 to incorporate fixed weights, applied to the average unit values of each export in successive years. This index was published for the years 1897 to 1929–30.

Two new series of monthly export price indexes were published in 1937, compiled back to 1928. One index used fixed weights and the other used changing weights. The methodology was changed and actual export prices were used instead of unit values. The indexes were compiled until 1962.

In 1962, a fixed weights index on the reference base of 1959–60 = 100.0 was introduced. A new interim series was linked to this index, still with a reference base of 1959–60 = 100.0, but from July 1969 with updated weights. The interim index was replaced in 1979 by an index on a reference base of 1974–75. In 1990, the current index was released.

The first index of the import prices produced by the ABS covered the period from September quarter 1981 to September quarter 1991 on a reference base of 1981–82 = 100.0. This index replaced an index previously published by the Reserve Bank of Australia on a reference base of 1966–67 = 100.0. The Reserve Bank's import price index was published from 1928 until September 1982.

The latest Import Price Index series was introduced in December 1991 with monthly index numbers compiled from April 1991 onwards, on a reference base of 1989–90 = 100.0.

To give a broad indication of long-term changes, the following table draws on the available foreign trade indexes.

FOREIGN TRADE PRICE INDEXES
(Reference base: Year 1968–69 = 100)

Year	*Export Price Index (All Groups)*	*Import Price Index (All Groups)*	*Year*	*Export Price Index (All Groups)*	*Import Price Index (All Groups)*
1901	15	. .	1971–72	102	114
1911	17	. .	1972–73	131	113
1921–22	25	. .	1973–74	157	131
1931–32	18	22	1974–75	177	189
1936–37	29	21	1975–76	193	214
1941–42	27	35	1976–77	216	246
1946–47	53	51	1977–78	227	278
1951–52	123	92	1978–79	256	307
1956–57	115	91	1979–80	309	403
1960–61	93	95	1980–81	328	450
1961–62	94	94	1981–82	332	458
1962–63	99	94	1982–83	360	506
1963–64	112	96	1983–84	369	524
1964–65	103	97	1984–85	396	580
1965–66	105	99	1985–86	417	659
1966–67	103	100	1986–87	431	731
1967–68	98	99	1987–88	469	742
1968–69	100	100	1988–89	501	694
1969–70	101	103	1989–90	529	729
1970–71	99	108	1990–91	503	752

Source: The sources used for the Import Price Index are the Reserve Bank of Australia Bulletin up to and including 1981–82, and the ABS Import Price Index, Australia (6414.0) thereafter. The source used for the Export Price Index is the ABS Export Price Index, Australia (6405.0).

Export Price Index

The index measures changes in the prices of all exports of merchandise from Australia, including re-exports (i.e., goods which are imported into Australia and exported at a later date without physical alteration). The index numbers for each month relate to prices of exports actually shipped during that month.

The current Export Price Index is a fixed weights index compiled on a reference base of 1989–90 = 100.0, with the weights based predominantly on Australian exports for 1988–89.

In general, prices are obtained from major exporters of the selected commodities included in the index.

The commodities included in the current index have been combined into broad index groups in two ways. Index numbers are produced for groupings defined in terms of the Australian Harmonized Export Commodity Classification (AHECC) and on an industry of origin basis defined in terms of the Australian Standard Industrial Classification (ASIC).

EXPORT PRICE INDEX: INDEX NUMBERS BASED ON AUSTRALIAN HARMONIZED EXPORT COMMODITY CLASSIFICATION (AHECC)(a)
(Base of each index: Year 1989–90 = 100.0)

		AHECC Sections				
Year	*All groups*	*Live animals, animal products (01)*	*Vegetable products (02)*	*Prepared foodstuffs (04)*	*Mineral products (05)*	*Products of chemical or allied industries (06)*
1989–90	100.0	100.0	100.0	100.0	100.0	100.0
1990–91	95.0	96.1	77.9	91.8	108.3	100.2

For footnotes *see* end of table.

EXPORT PRICE INDEX: INDEX NUMBERS BASED ON AUSTRALIAN HARMONIZED EXPORT COMMODITY CLASSIFICATION (AHECC)(a) — *continued*

(Base of each index: Year 1989–90 = 100.0)

	AHECC Sections				
Year	*Wool and cotton fibres (11)*	*Gold, diamonds and coin (14)*	*Base metals and articles of base metals (15)*	*Machinery and mechanical appliances (16)*	*Motor vehicles, aircraft and vessels (17)*
1989–90	100.0	100.0	100.0	100.0	100.0
1990–91	77.8	96.6	92.6	97.8	100.0

(a) Data prior to 1989–90 are not available because AHECC is not strictly comparable with the AECC formerly used.

Source: Export Price Index, Australia (6405.0).

EXPORT PRICE INDEX: INDEX NUMBERS BASED ON AUSTRALIAN STANDARD INDUSTRIAL CLASSIFICATION (ASIC)

(Base of each index: Year 1989–90 = 100.0)

	ASIC Divisions		
Year	*Agriculture (A)*	*Mining (B)*	*Manufacturing (C)*
1985–86	72	91	76
1986–87	71	93	81
1987–88	93	84	89
1988–89	103	83	96
1989–90	100.0	100.0	100.0
1990–91	77.2	106.5	96.9

Source: Export Price Index, Australia (6405.0).

Import Price Index

The Import Price Index measures changes in prices of imports of merchandise into Australia on a free on board country of origin basis. The index numbers for each month relate to prices of imports landed in Australia during the month.

The Import Price Index was first published in May 1983 on a reference base of 1981–82 = 100.0. Quarterly index numbers are available from the September quarter 1981 to the September quarter 1991.

A review of the index was completed in December 1991. The resulting index is on a reference base of 1989–90 = 100.0 and uses a weighting pattern based on the pattern of Australian imports during 1988–89 and 1989–90. Monthly index numbers are available from April 1991.

Prices of individual shipments are obtained from major importers of the selected items.

Index items have been grouped according to four different classifications:

- the Standard International Trade Classification (SITC);
- the Combined Customs Tariff and Statistical Nomenclature;
- on an industry of origin basis defined in terms of the ASIC; and
- the United Nations Classification by Broad Economic Categories (BEC).

IMPORT PRICE INDEX: INDEX NUMBERS BASED ON THE STANDARD INTERNATIONAL TRADE CLASSIFICATION (SITC)
(Base of each index: Year 1989–90 = 100.0)(a)

SITC Section	*1988–89*	*1989–90*	*1990–91*
(0) Food and live animals chiefly for food	98.1	100.0	98.8
(1) Beverages and tobacco	91.8	100.0	107.2
(2) Crude materials, inedible, except fuels	93.0	100.0	94.6
(3) Mineral fuels, lubricants and other related materials	79.2	100.0	119.0
(4) Animal and vegetable oils, fats and waxes	94.7	100.0	96.2
(5) Chemicals and related products n.e.s.	99.2	100.0	100.4
(6) Manufactured goods classified chiefly by material	94.9	100.0	102.1
(7) Machinery and transport equipment	97.8	100.0	102.7
(8) Miscellaneous manufactured	n.a.	100.0	103.0
(9) Commodities and transactions not elsewhere classified	n.a.	100.0	96.0
All groups	**95.3**	**100.0**	**103.2**

(a) The index series for 1988–89 is based on the series previously published on a reference base of 1981–82 = 100.0. They have been converted to reference base 1988–89 = 100.0 by linking the old and new series at September quarter 1991.

Source: Import Price Index, Australia (6414.0).

IMPORT PRICE INDEX: INDUSTRY OF ORIGIN INDEX NUMBERS BASED ON THE AUSTRALIAN STANDARD INDUSTRIAL CLASSIFICATION (ASIC)
(Base of each index: Year 1989–90 = 100.0)(a)

Division	*1988–89*	*1989–90*	*1990–91*
A Agriculture, forestry, fishing and hunting	109.9	100.0	97.6
B Mining	85.3	100.0	120.7
C Manufacturing	95.7	100.0	102.4

(a) The index series for 1988–89 is based on the series previously published on a reference base of 1981–82 = 100.0. They have been converted to reference base 1988–89 = 100.0 by linking the old and new series at September quarter 1991.

Source: Import Price Index, Australia (6414.0).

IMPORT PRICE INDEX: INDEX NUMBERS FOR BROAD ECONOMIC CATEGORIES (BEC) AND END USE CLASSES
(Base of each index: Year 1989–90 = 100.0)(a)

	1988–89	*1989–90*	*1990–91*
Broad Economic Categories			
Food and beverages	96.8	100.0	100.4
Industrial supplies n.e.s.	95.8	100.0	99.9
Fuels and lubricants	79.2	100.0	119.0
Capital goods and parts and accessories thereof	97.1	100.0	103.6
Transport equipment and parts and accessories thereof	98.6	100.0	102.4
Consumer goods n.e.s.	95.5	100.0	102.7
End Use Classes			
Capital goods	98.9	100.0	103.6
Intermediate goods	93.2	100.0	102.9
Consumption goods	96.2	100.0	103.4

(a) The index series for 1988–89 is based on the series previously published on a reference base of 1981–82 = 100.0. They have been converted to reference base 1988–89 = 100.0 by linking the old and new series at September quarter 1991.

Source: Import Price Index, Australia (6414.0).

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Producer and Foreign Trade Price Indexes: Concepts, Sources and Methods (6419.0)

Other Publications

Monthly Bulletin of Statistics of the Statistical Office of the United Nations

Reserve Bank of Australia Bulletin

FOR MORE INFORMATION

The ABS has a far wider range of information on Australia than that contained in the *Year Book*. Information is available in the form of regular publications, electronic data services, special tables and from investigations of published and unpublished data.

For further information contact ABS Information Services at one of the addresses listed on the page facing the Introduction to the *Year Book*.

Chapter Twenty-two

Construction and Housing

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THE CONSTRUCTION INDUSTRY

The construction industry engages in three broad areas of activity — residential building (houses, flats, etc.), non-residential building (offices, shops, hotels, etc.), and engineering construction (roads, bridges, water and sewerage, etc.). In this section an overview of the structure, operations and trends is presented of the construction industry as a whole, based on statistical collections undertaken about every five years, 1988-89 being the latest period for which this overall data is available. This is followed by more recent and detailed statistics on residential building, non-residential building and engineering construction activities obtained from other ongoing statistical collections. Because of the different sources and methods used for the various collections the resulting statistics are not always comparable with each other.

Significance in the economy

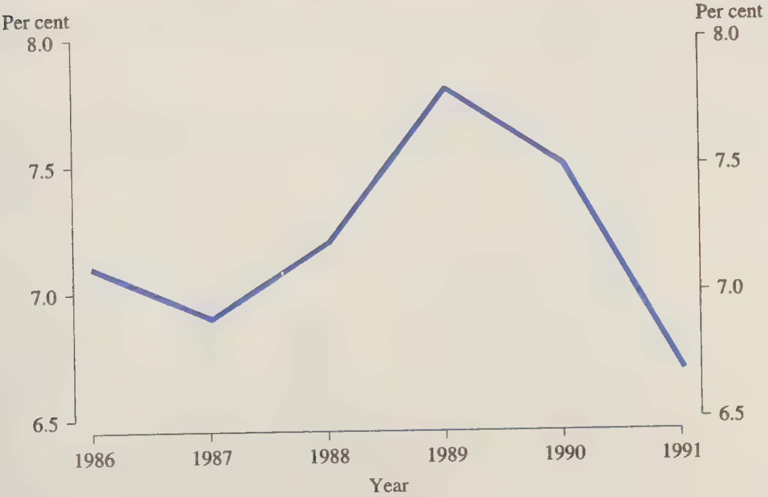
The construction industry is an important sector of the Australian economy. Not only is it significant in its own right, but it has an influential effect on other sectors of the economy.

CONTRIBUTION OF CONSTRUCTION INDUSTRY TO GROSS PRODUCT AT AVERAGE 1984–85 PRICES
($ million)

Industry	*1985–86*	*1986–87*	*1987–88*	*1988–89*	*1989–90*	*1990–91*
Construction	16,164	15,843	16,538	17,948	18,240	16,833
All industries(a)	**226,452**	**229,534**	**241,621**	**253,880**	**264,668**	**261,701**
Per cent contribution	7.1	6.9	6.8	7.1	6.9	6.4

(a) Includes ownership of dwellings, and import duties less imputed bank service charge.
Source: Australian National Accounts: Gross Product, Employment and Hours Worked (5211.0).

PERCENTAGE OF WORKFORCE EMPLOYED IN CONSTRUCTION INDUSTRY
(August 1986 to August 1991)



Source: The Labour Force, Australia (6203.0).

PRIVATE SECTOR CONSTRUCTION ESTABLISHMENTS: SUMMARY OF OPERATIONS BY INDUSTRY CLASS, 1988-89

			Employment					Stocks			
ASIC code	Description	Establishments operating during the year ('000)	Working proprietors and partners ('000)	Employees ('000)	Total ('000)	Wages and salaries ($m)	Total turnover (a) ($m)	Opening ($m)	Closing ($m)	Total purchases and selected expenses (b) ($m)	Value added ($m)
4111	House construction	13.9	13.9	29.4	43.4	566.5	8,488.7	691.4	1,077.1	7,029.8	1,844.6
4112	Residential building construction n.e.c.	1.8	1.5	6.3	7.8	136.4	1,851.0	206.9	309.5	1,543.9	409.8
4113	Non-residential building construction	3.9	2.8	44.5	47.3	1,349.2	13,749.2	790.8	1,082.8	11,069.3	2,971.9
411	*Total building construction*	*19.6*	*18.2*	*80.2*	*98.4*	*2,052.1*	*24,088.9*	*1,689.1*	*2,469.4*	*19,643.0*	*5,226.2*
4121	Road and bridge construction	0.8	0.5	11.5	12.0	324.1	2,214.7	75.6	98.2	1,481.0	756.3
4122	Non-building construction n.e.c.	3.1	2.9	22.1	25.0	662.5	3,076.0	130.8	116.8	1,868.2	1,193.8
412	*Total non-building construction*	*3.9*	*3.4*	*33.6*	*37.0*	*986.6*	*5,290.7*	*206.4*	*215.0*	*3,349.2*	*1,950.1*
41	*Total general construction*	*23.5*	*21.6*	*113.8*	*135.4*	*3,038.7*	*29,379.6*	*1,895.5*	*2,684.4*	*22,992.2*	*7,176.3*
4231	Concreting	4.1	4.3	12.1	16.4	275.8	1,452.6	16.5	*23.5	835.2	624.4
4232	Bricklaying	7.7	10.4	10.3	20.8	198.1	763.6	5.5	7.6	232.4	533.4
4233	Roof tiling	1.5	1.9	3.2	5.1	52.6	343.2	8.4	8.9	218.2	125.5
4234	Floor and wall tiling	2.9	3.7	2.2	5.9	39.6	240.6	3.7	5.6	103.8	138.6
4241	Structural steel erection	1.2	1.1	7.1	8.2	195.0	506.8	11.7	11.8	180.4	326.6
4242	Plumbing	10.6	11.1	25.1	36.2	522.6	2,451.3	45.4	56.3	1,294.1	1,168.2
4243	Electrical work	8.5	8.2	30.5	38.7	735.3	2,753.9	86.7	88.9	1,458.3	1,297.8
4244	Heating and air conditioning	1.3	0.9	12.7	13.5	312.7	1,595.9	72.1	86.1	1,002.2	607.8
4245	Plastering and plaster fixing	4.5	5.4	10.5	15.9	204.2	1,040.2	14.3	21.3	587.9	459.4
4246	Carpentry	12.7	16.8	13.6	30.4	280.3	1,288.6	24.9	29.0	539.2	753.5
4247	Painting	8.9	11.3	13.1	24.4	273.3	1,085.4	14.3	14.8	427.8	658.1
4248	Earthmoving and dredging	4.5	4.9	12.3	17.2	290.7	1,662.8	42.6	47.7	860.7	807.3
4249	Special trades n.e.c.	6.3	6.4	20.6	27.0	483.8	2,191.3	50.2	58.2	1,185.6	1,013.7
42	*Total special trade construction*	*74.5*	*86.4*	*173.2*	*259.6*	*3,863.8*	*17,376.3*	*396.3*	*459.9*	*8,925.6*	*8,514.4*
41,42	**Total construction**	**98.1**	**108.0**	**287.0**	**395.0**	**6,902.5**	**46,755.9**	**2,291.8**	**3,144.4**	**31,917.7**	**15,690.7**

(a) Includes contract construction revenue; sales of speculative construction projects; capital work done for own use, rental or lease; and other operating revenue. (b) Includes purchases of materials and plant fuels; transfers in; payments to contractors and sub-contractors; rent, leasing and hiring expenses; motor vehicle running expenses; outward freight and cartage; and commission expenses.

Source: Construction Industry, Australia: Summary of Private Sector Operations, 1988–89 (8771.0).

At average 1984–85 prices, the construction industry has contributed on average 6.9 per cent of total gross product. This contribution has declined in the last two years and the 1990–91 contribution of 6.4 per cent is the lowest of the last 11 years.

Over the last six years, an average of 7.2 per cent of the workforce has been employed in the construction industry. This proportion peaked at 7.8 per cent in 1988 but has fallen the last two years, reflecting the recent decline in construction activity and depressed economic conditions. In August 1991, there were 510,200 persons employed in the construction industry, down from the peak of just over 600,000 in 1989.

The structure of the Construction Industry

Construction activity is undertaken by both the private and public sector in Australia. Private sector activity is concentrated in the residential and non-residential (offices, hotels, etc.) building sectors, while the public sector plays a key role in initiating and undertaking engineering construction activity.

The ABS conducts construction industry surveys about every five years. For the most recent survey period, 1988–89, two collections were undertaken: the Construction Industry Survey of private sector construction establishments and a survey of construction activities undertaken by public sector enterprises. Key statistics for the two sectors are presented below. Because of the different concepts used in the collection of these data, the public sector results cannot be validly aggregated with those for the private sector.

Private sector construction

Australia wide, there were 98,100 private sector construction establishments operating at some time during 1988–89 (*see* table on previous page). These establishments employed 395,000 persons, 287,000 (72.7%) as employees and the remaining 108,000 (27.3%) as working proprietors and partners, the latter occurring predominantly among special trade construction establishments. Total turnover was $46,755.9 million and value added, $15,690.7 million.

The special trade construction industries, while comprising 76.0 per cent of the number of establishments, contributed 65.7 per cent to employment and 54.3 per cent to value added. Non-residential construction (i.e., the sum of non-residential building construction and non-building construction) on the other hand, while comprising only 8.0 per cent of the number of establishments, contributed 21.3 per cent to employment and 31.4 per cent to value added.

PRIVATE SECTOR CONSTRUCTION ESTABLISHMENTS: NUMBER OF ON-SITE WORKERS BY OCCUPATION, 30 JUNE 1989

Occupation	*Number ('000)*	*Per cent*
Managers, supervisors and technicians	42.7	14.5
Building trades	96.7	32.8
Finishing trades	40.9	13.9
Electrical and electronic trades	32.0	10.9
Metal trades	13.8	4.7
Other trades	4.9	1.7
Plant and machine operators	1322.5	7.6
Labourers	32.2	10.9
Other occupations	9.0	3.1
Total	**294.6**	**100.0**

Source: Construction Industry Australia: Summary of Private Sector Operations, 1988–89 (8771.0).

An estimated 294,600 people were employed on-site by private sector construction establishments at 30 June 1989. The largest occupational group was 'building trades' which accounted for 32.8 per cent of on-site employment. This was followed by managers, supervisors and technicians with 14.5 per cent, finishing trades with

13.9 per cent and labourers, and electrical and electronic trades both with 10.9 per cent.

Public sector construction

The Public Sector Construction Activity Survey provided details on the construction and/or repair and maintenance activities of all public sector enterprises which had expenditure of $250,000 or more. This includes hospitals and universities administered by relevant public authorities.

PUBLIC SECTOR ENTERPRISES UNDERTAKING CONSTRUCTION ACTIVITY EXPENDITURE BY LEVEL OF GOVERNMENT, 1988–89
($ million)

	Expenditure on construction, repair and maintenance				
	Work done by own employees				
Level of government	*Wages and salaries*	*Materials and other expenses*	*Total*	*Work done by private sector contractors*	*Total expenditure*
Commonwealth	1,491.8	1,991.3	3,483.1	1,731.8	5,214.9
State	2,800.6	3,853.9	6,654.5	5,680.6	12,335.1
Local	1,051.5	1,290.4	2,341.9	675.4	3,017.3
Total	**5,343.9**	**7,135.6**	**12,479.6**	**8,087.8**	**20,567.3**

Source: Public Sector Construction Activity, Australia, 1988–89 (8775.0).

Australia wide, $20,567.3 million was spent by the public sector on construction and repair and maintenance activity in 1988–89. Of this, $8,087.7 million (39.2%) represents payments to private sector contractors, $7,135.6 million (34.7%) was spent on materials and other expenses, with the remaining $5,343.9 million (26.0%) spent on wages and salaries of public sector employees. State Government was responsible for the bulk of the expenditure with $12,335.1 million (60.0%). The Commonwealth Government outlayed $5,214.9 million (25.4%) and local government $3,017.3 million (14.7%).

PUBLIC SECTOR ENTERPRISES UNDERTAKING CONSTRUCTION ACTIVITY EMPLOYMENT BY LEVEL OF GOVERNMENT, JUNE 1989(a)

		Employment		
Level of government	*Number of enterprises*	*On-site ('000)*	*Off-site ('000)*	*Total ('000)*
Commonwealth	176	41.7	6.8	48.5
State	498	79.3	24.8	104.1
Local	828	43.2	7.8	51.0
Total	**1,502**	**164.2**	**39.4**	**203.6**

(a) During last pay period in June 1989. Includes apprentices.
Source: Public Sector Construction Activity, Australia, 1988–89 (8775.0).

Overall, 1,502 Commonwealth, State and local government enterprises, employing 203,600 people in construction related occupations, were involved in significant construction and/or repair and maintenance activity during 1988–89. Of the 203,600 public sector personnel involved in construction activity, 51.1 per cent were employed by State Government, 25.1 per cent by local government and 23.8 per cent by the Commonwealth Government. A total of 164,200 employees (80.7%) were engaged in on-site construction activities, and 39,400 employees (19.3%) worked off-site. This gave a ratio of one off-site support employee for every four employees working on-site.

PUBLIC SECTOR ENTERPRISES UNDERTAKING CONSTRUCTION ACTIVITY TOTAL EXPENDITURE BY TYPE OF WORK, 1988–89

	Commonwealth Government		*State Government*		*Local Government*		*Total*	
	$m	*%*	*$m*	*%*	*$m*	*%*	*$m*	*%*
New work, alterations, additions, improvements and renovations								
Building								
Residential	73.7	1.4	768.5	6.2	11.0	0.4	853.1	4.1
Non-residential	1,319.7	25.3	2,843.6	23.1	232.8	7.7	4,396.1	21.4
Total building	*1,393.4*	*26.7*	*3,612.1*	*29.3*	*243.8*	*8.1*	*5,249.2*	*25.5*
Engineering								
Roads, highways and subdivisions	95.5	1.8	1,298.6	10.5	834.3	27.7	2,228.4	10.8
Electricity generation, transmission and distribution	40.4	0.8	1,314.2	10.7	228.5	7.6	1,583.0	7.7
Telecommunications	1,899.7	36.4	25.5	0.2	0.2	—	1,925.4	9.4
Other engineering	130.5	2.5	1,741.1	14.1	443.8	14.7	2,315.5	11.3
Total engineering	*2,166.1*	*41.5*	*4,379.4*	*35.5*	*1,506.8*	*49.9*	*8,052.3*	*39.2*
Total new work, alterations, additions, improvements and renovations	*3,559.4*	*68.3*	*7,991.4*	*64.8*	*1,750.6*	*58.0*	*13,301.5*	*64.7*
Repair and maintenance								
Building	552.3	10.6	1,089.5	8.8	114.8	3.8	1,756.6	8.5
Roads, highways and subdivisions	33.5	0.7	621.9	5.0	780.0	25.9	1,435.4	7.0
Other repair and maintenance	1,069.5	20.5	2,627.8	21.3	371.4	12.3	4,068.7	19.8
Total repair and maintenance	*1,655.4*	*31.7*	*4,339.2*	*35.2*	*1,266.2*	*42.0*	*7,260.7*	*35.3*
Total Demolition	0.1	—	4.4	—	0.6	—	5.1	—
Total construction, repair, maintenance and demolition	**5,214.9**	**100.0**	**12,335.1**	**100.0**	**3,017.3**	**100.0**	**20,567.3**	**100.0**

Source: Public Sector Construction Activity, Australia, 1988–89 (8775.0).

The largest construction expenditure component across all governments was $3,663.8 million (17.8%) spent on roads, highways and subdivisions. Of this, $2,228.4 million (60.8%) was spent on construction of new roads and the remaining $1,435.4 million (39.2%) on the repair and maintenance of existing roads.

State Governments' largest construction outlay of $2,627.8 million (21.3%) was on the repair and maintenance of non-road engineering structures. Electricity generation, transmission and distribution was next with $1,314.2 million (10.7%) and construction of roads, highways and subdivisions accounted for $1,298.6 million (10.5%). An additional $621.9 million (5.0%) was spent on the repair and maintenance of existing roads, highways and land subdivisions. In contrast, the Commonwealth Government's largest construction outlay was $1,899.7 million (36.4%) on telecommunications. The repair and maintenance of non-road engineering structures accounted for $1,069.5 million (20.5%). Expenditure on buildings (new and alterations and additions) was $1,393.4 million (26.7%) with expenditure of $552.3 million (10.6%) on the repair and maintenance of existing buildings.

Local governments' principal construction expenditure was on roads, highways and subdivisions with $834.3 million (27.7% of total expenditure) spent on new work and $780.0 million (25.9%) spent on their repair and maintenance. Other major expenditure was $371.4 million (12.3%) on the repair and maintenance of non-road engineering structures.

PUBLIC SECTOR ENTERPRISES UNDERTAKING CONSTRUCTION ACTIVITY NUMBER OF ON-SITE EMPLOYEES BY OCCUPATION, JUNE 1989(a)

Occupation	*Number ('000)*	*Per cent*
Managers, supervisors and technicians	20.4	12.4
Building trades	12.8	7.8
Finishing trades	3.7	2.3
Electrical and electronic trades	47.5	28.9
Metal trades	3.0	1.8
Other trades	6.7	4.1
Plant and machine operators	28.2	17.2
Labourers	41.3	25.2
Other occupations	0.7	0.4
Total	**164.2**	**100.0**

(a) During the last pay period in June 1989. Includes apprentices.
Source: Public Sector Construction Activity, Australia, 1988–89 (8775.0).

The largest occupational category was electrical and electronic trades with 47,500 employees (28.9%). This was followed by labourers with 41,300 (25.2%), plant and machine operators with 28,200 (17.2%) and managers, supervisors and technicians with 20,400 (12.4%).

Trends in the Construction Industry

PRIVATE SECTOR CONSTRUCTION ESTABLISHMENTS: SELECTED ITEMS AND OPERATING RATIOS AT AVERAGE 1984–85 PRICES BY INDUSTRY, 1988–89 AND 1984–85

	General construction industry									
	Building construction industry				*Non-building construction industry*					
	House	*Residential building n.e.c.*	*Non-residential building*	*Total*	*Road and bridge*	*Non-building n.e.c.*	*Total*	*Total*	*Special trade construction industry*	*Total construction industry*
ITEMS										
Establishments operating										
At 30 June 1989 (Number)	13,791	1,770	3,861	19,422	777	3,105	3,882	23,304	73,301	96,605
At 30 June 1985 (Number)	19,438	1,536	2,987	23,961	844	2,519	3,362	27,323	73,467	100,789
Movement (%)	*–29.1*	*15.2*	*29.3*	*–18.9*	*–7.9*	*23.3*	*15.5*	*–14.7*	*–0.2*	*–4.2*
Employment										
At 30 June 1989 ('000)	43.3	7.8	47.3	98.4	12.0	25.0	37.0	135.4	259.6	395.0
At 30 June 1985 ('000)	47.5	4.9	31.9	84.4	12.1	22.8	34.9	119.3	206.9	326.2
Movement (%)	*–8.8*	*59.2*	*48.3*	*16.6*	*–0.8*	*9.6*	*6.0*	*13.5*	*25.5*	*21.1*
Turnover										
1988–89 ($ million)	5,907.3	1,323.1	10,043.2	17,273.6	1,809.4	2,219.4	4,028.8	21,302.4	12,600.7	33,903.1
1984–85 ($ million)	5,107.0	830.3	5,717.0	11,654.3	1,655.5	2,498.6	4,154.2	15,808.5	9,140.0	24,948.5
Movement (%)	*15.7*	*59.4*	*75.7*	*48.2*	*9.3*	*–11.2*	*–3.0*	*34.8*	*37.9*	*35.9*

... continued

PRIVATE SECTOR CONSTRUCTION ESTABLISHMENTS: SELECTED ITEMS AND OPERATING RATIOS AT AVERAGE 1984–85 PRICES BY INDUSTRY, 1988–89 AND 1984–85 — *continued*

	General construction industry									
	Building construction industry				*Non-building construction industry*					
	House	*Residential building n.e.c.*	*Non-residential building*	*Total*	*Road and bridge*	*Non-building n.e.c.*	*Total*	*Total*	*Special trade construction industry*	*Total construction industry*
				OPERATING RATIOS						
Employment per establishment										
At 30 June 1989 (Number)	3.1	4.4	12.3	5.1	15.4	8.1	9.5	5.8	3.5	4.1
At 30 June 1985 (Number)	2.4	3.2	10.7	3.5	14.3	9.1	10.4	4.4	2.8	3.2
Movement (%)	*28.5*	*38.1*	*14.7*	*43.8*	*7.7*	*–11.0*	*–8.2*	*33.1*	*25.8*	*26.3*
Turnover per establishment										
1988–89 ($'000)	428.3	747.5	2,601.2	889.4	2,328.7	714.8	1,037.8	914.1	171.9	350.9
1984–85 ($'000)	262.7	540.4	1,914.0	486.4	1,961.5	991.9	1,235.6	578.6	124.4	247.5
Movement (%)	*63.0*	*38.3*	*35.9*	*82.9*	*18.7*	*–27.9*	*–16.0*	*58.0*	*38.2*	*41.8*
Turnover to employment										
1988–89 ($'000)	136.4	169.6	212.3	175.5	150.8	88.8	108.9	157.3	48.5	85.8
1984–85 ($'000)	107.5	169.4	179.2	138.1	136.8	109.6	119.0	132.5	44.2	76.5
Movement (%)	*26.9*	*0.1*	*18.5*	*27.1*	*10.2*	*–19.0*	*–8.5*	*18.7*	*9.9*	*12.2*

Source: Construction Industry Australia: Summary of Private Sector Operations, 1988–89 (8771.0).

The above table sets out some selected items and operating ratios at average 1984–85 prices, by industry for 1988–89 and 1984–85. These statistics may assist in gauging the performance of the private sector construction industry.

The number of establishments fell 4.2 per cent from 100,800 in 1984–85 to 96,600 in 1988–89. However, employment increased by 21.1 per cent from 326,000 to 395,000 in the same period. This indicates a rationalisation within the construction industry with fewer but larger establishments. The employment per establishment ratio of 3.2 in 1984–85 rose 26.3 per cent to 4.1 in 1988–89.

Turnover at average 1984–85 prices rose significantly from $24,948.5 million in 1984–85 to $33,903.1 million in 1988–89, a 35.9 per cent increase. This increase was most pronounced in the non-residential building construction (up 75.7%) and the residential building construction n.e.c. (up 59.4%) industries. Turnover in the non-building construction n.e.c. industry fell 11.2 per cent from $2,498.6 million in 1984–85 to $2,219.4 million in 1988–89.

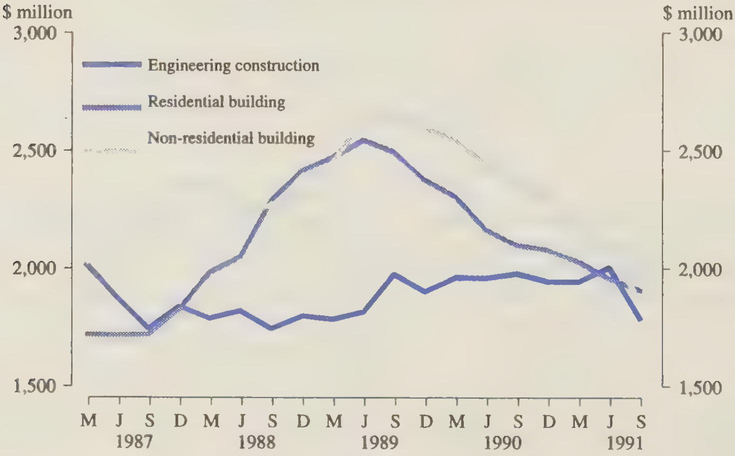
Trends over recent years in the level of activity of the construction industry as a whole, both private and public, are shown below.

PRIVATE AND PUBLIC CONSTRUCTION ACTIVITY AT AVERAGE 1984–85 PRICES
($ million)

Year/quarter	*Residential building*	*Non-residential building*	*Engineering construction*	*Total construction*
1989				
December	2,487	2,738	1,955	7,180
1990				
March	2,137	2,317	1,811	6,265
June	2,150	2,423	2,072	6,644
September	2,151	2,451	1,960	6,562
December	2,179	2,440	1,995	6,613
1991				
March	1,882	1,960	1,803	5,645
June	1,946	2,063	2,105	6,114
September	1,950	1,879	1,761	5,589

Source: Construction Activity at Constant Prices, Australia (8782.0).

PRIVATE AND PUBLIC CONSTRUCTION ACTIVITY AT AVERAGE 1984-85 PRICES, SEASONALLY ADJUSTED



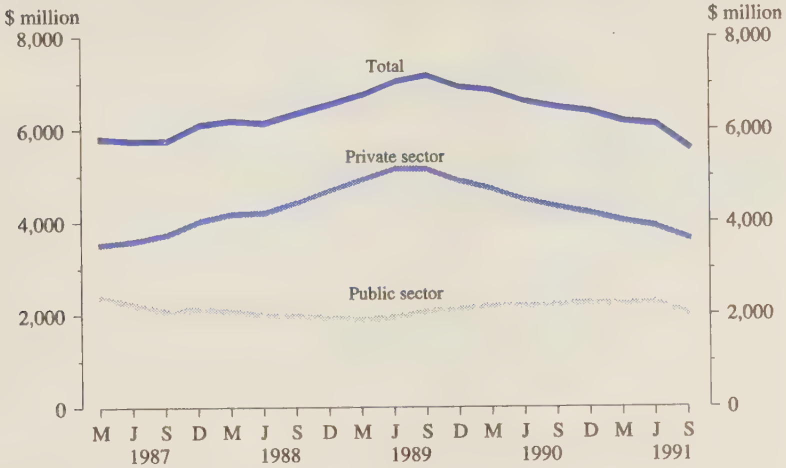
Source: Construction Activity at Constant Prices, Australia (8782.0).

The decline in total construction activity over the last two to three years can be clearly seen. Both residential building and non-residential building have declined significantly since 1988–89, while engineering construction activity has held up against these trends.

In the September quarter 1991 total construction activity at average 1984–85 prices was $5,589 million. Of this, $3,652 million (65.3%) was work done for the private sector, with the remaining $1,936 million (34.6%) being work done for the public sector. Of the work done for the private sector, $1,867 million (51.1%) was on residential building, $1,227 million (33.6%) on non-residential building and the residual $558 million (15.3%) on engineering construction.

Expenditure for the public sector differed considerably, with $1,203 million of the $1,936 million expenditure (62.1%) being spent on engineering construction. Expenditure on residential building ($83 million) made up only 4.3 per cent of total expenditure, with the remaining $651 million (33.6%) spent on the construction of non-residential building.

PRIVATE AND PUBLIC CONSTRUCTION ACTIVITY AT AVERAGE 1984-85 PRICES SEASONALLY ADJUSTED



Source: Construction Activity at Constant Prices, Australia (8782.0).

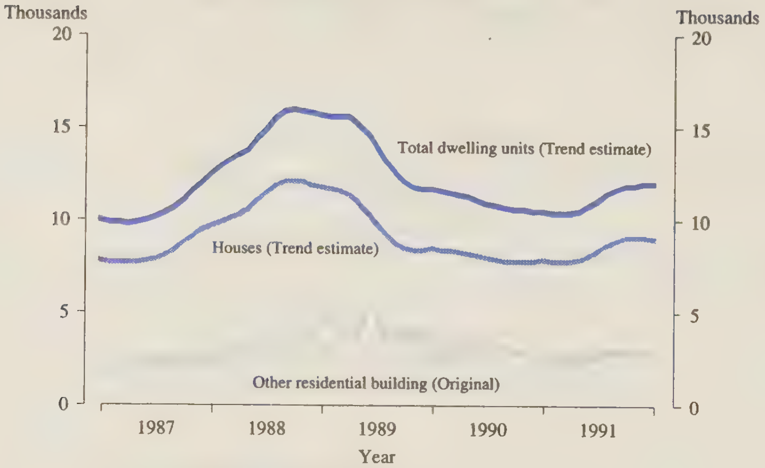
Construction activity for the public sector has remained relatively constant at just over $2,000 million each quarter. The volatility in the total construction series is dominated by the trends in the private sector construction activity series.

Up to this point, this chapter has provided an overview of the construction industry as a whole. As stated at the beginning of the chapter, the industry has three broad areas of activity — residential building, non-residential building and engineering construction. These sectors are examined in more detail in the following sections.

Residential building

Residential building involves the construction of dwelling units. In this section, dwelling units are separated into new houses and other residential building (flats, appartments, villa units, town houses, and other dwelling units).

NUMBER OF DWELLING UNITS APPROVED IN NEW RESIDENTIAL BUILDINGS

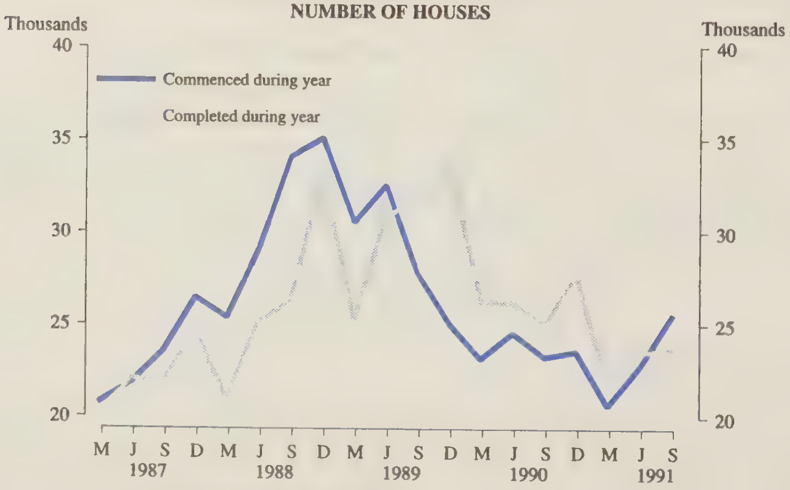


Source: Building Approvals, Australia (8731.0).

As can be seen in the above chart, other residential building approvals are substantially lower than house approvals. House building approvals rose from June quarter 1987, peaked in September quarter 1988 and have since fallen away.

New houses

NEW HOUSE BUILDING ACTIVITY
NUMBER OF HOUSES



Source: Building Activity, Australia (8752.0).

The preceding chart reflects that the number of new house commencements follows a cyclical pattern which lasts for approximately four years. Lows were recorded in 1982–83, 1986–87 and 1990–91 with 79,100 houses commenced in 1982–83 being the lowest figure over the last 12 years. Peaks occurred in 1984–85 and 1988–89, the 1988–89 figure (132,400) being the largest over a 12 year period. Since 1988–89 commencements dropped sharply. Completions generally follow the pattern of commencements.

RESIDENTIAL BUILDING, 1990–91
('000)

	New houses	*New other residential building*
Private Sector		
Approved	91.0	26.3
Commenced	87.0	24.4
Completed	94.0	28.9
Public Sector		
Approved	3.1	5.7
Commenced	3.4	6.4
Completed	3.8	7.7
Total		
Approved	94.1	32.0
Commenced	90.5	30.9
Completed	97.8	36.7

Source: Building Approvals, Australia (8731.0) and Building Activity, Australia (8752.0).

The total number of new houses approved in Australia in 1990–91 was 94,100, a decrease of 6,700 on the 1989–90 figure of 100,800. Private sector approvals contributed 96.7 per cent to the total number of new houses approved. New house completions in Australia during 1990–91 totalled 97,600.

Approvals were down on 1989–90 figures in all States except Queensland and South Australia. The largest fall was in Victoria, where approvals declined from 27,600 in 1989–90 to 20,900 in 1990–91. This follows the downward trend of approvals in new houses since 1988.

Other residential building

The level of activity of other residential building construction is highly variable and does not follow the regular pattern experienced in house construction. This can be explained partly by the generally larger size of other residential building construction jobs and also by the extent of speculative building of private flats, home units and similar other residential building projects.

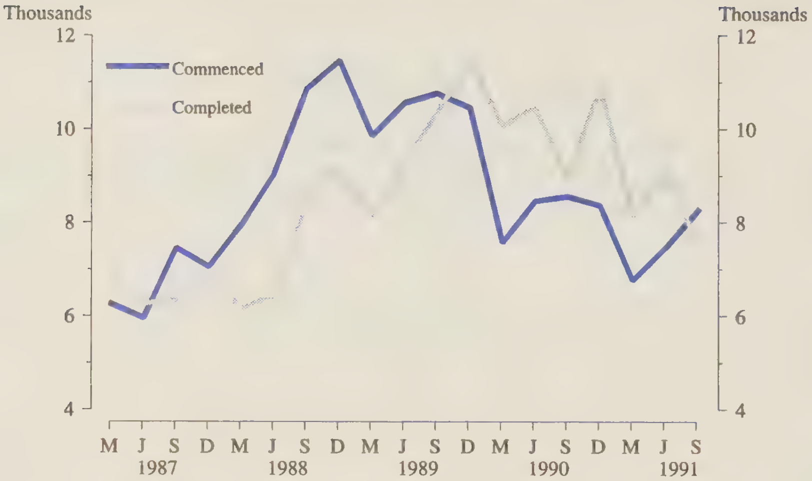
Of the 32,000 new other residential building dwelling units which were approved in Australia during 1990–91, 82.2 per cent were private sector jobs. The public sector plays a much larger role in the construction of other residential building dwelling units than it does in the construction of houses.

The number of approvals decreased from the 1989–90 figures in all States and Territories. The total number of dwelling units in new other residential building approved declined by 7,200. The largest fall was in Queensland with 2,100 less approvals than in 1990–91.

The number of new other residential buildings completed in 1990–91 was 36,700, a 5,400 decrease on the 1989–90 figure of 42,100.

Commencements recorded peaks in 1988–89 and have since fallen away. Completions peaked in 1989–90 and have fallen since.

OTHER RESIDENTIAL BUILDING ACTIVITY
NUMBER OF DWELLING UNITS



Source: Building Activity, Australia (8752.0).

Value of residential building

Approvals for total new residential building were valued at $10,253.3 million in 1990–91. New house approvals were valued at $7,998.8 million, or 78.0 per cent of the total value of new residential building approvals. Approvals for alterations and additions totalled $1,894.9 million.

The value of work done on new residential buildings in 1990–91 was $11,154.2 million, making up 41.4 per cent of the total value of building work done, and the value of alterations and additions was $2,129.7 million.

VALUE OF RESIDENTIAL BUILDING, 1990–91
($ million)

Class of building	*Approved*	*Work done(a)*
New residential buildings		
New houses	7,998.8	8,550.6
New other residential buildings	2,254.5	2,620.0
Total new residential building	*10,253.3*	*11,170.6*
Alterations and additions to residential buildings(b)	1,894.9	2,131.3

(a) During period. (b) Valued at $10,000 or more.

Source: Building Approvals, Australia (8731.0) and Building Activity, Australia (8752.0).

Non-residential building

Value of non-residential building

The value of total non-residential building approved in Australia during 1990–91 was $8,957.4 million, a 32.1 per cent decrease on the 1989–90 figure of $13,199.7 million. Falls were recorded in all categories with the exception of Religious which posted a slight increase of $2.5 million. The largest drop (in both absolute and relative terms) was in the approvals of Offices which plummeted from $4,253.3 million in 1989–90 to $2,383.3 million in 1990–91, a drop of 56.0 per cent.

The total value of work done on non-residential building in 1990–91 was $13,664.8 million, a decrease of 12.0 per cent on the 1989–90 figure of $15,535.3 million.

All categories of non-residential building recorded decreases in the value of work done in 1990–91, except Educational which increased by 11.9 per cent.

The value of work done on Offices in 1990–91 was $4,708.6 million or 34.5 per cent of total non-residential building. Other significant categories were Other business premises and Shops which contributed about 11.6 per cent each to total non-residential building.

VALUE OF NON-RESIDENTIAL BUILDING, 1989–90 AND 1990–91
($ million)

	1989–90		1990–91	
Class of building	*Approved*	*Work done(a)*	*Approved*	*Work done(a)*
Hotels, etc.	929.6	1,326.1	526.0	1,193.8
Shops	1,917.6	2,052.4	1,256.2	1,584.2
Factories	1,475.8	1,640.1	1,111.7	1,312.6
Offices	4,253.3	5,504.4	2,383.3	4,730.6
Other business premises	1,634.7	1,736.4	1,054.3	1,608.9
Educational	1,070.0	1,088.8	928.1	1,225.6
Religious	73.6	86.8	76.1	81.2
Health	607.2	720.7	526.2	676.0
Entertainment and recreational	545.5	706.2	536.0	649.9
Miscellaneous	692.4	673.3	559.4	665.0
Total non-residential building(b)	**13,199.7**	**15,535.3**	**8,957.4**	**13,727.8**

(a) During period. (b) Valued at $30,000 or more.

Source: Building Approvals, Australia (8731.0) and Building Activity, Australia (8752.0).

Building activity at constant prices

Estimates of the value of work done at average 1984–85 prices are presented below.

Constant price estimates measure changes in value after the direct effects of price changes have been eliminated.

VALUE OF BUILDING WORK DONE AT AVERAGE 1984–85 PRICES
($ million)

	New residential building					
Year	*Houses*	*Other residential buildings*	*Total*	*Alterations and additions to residential buildings*	*Non-residential building*	*Total building*
1985–86	5,552.9	1,307.0	6,859.9	953.4	7,425.5	15,238.8
1986–87	4,808.2	1,116.2	5,924.4	951.9	8,045.3	14,921.6
1987–88	5,314.9	1,170.2	6,485.1	1,071.2	9,223.6	16,779.9
1988–89	6,696.9	1,784.2	8,481.1	1,228.2	9,620.1	19,329.4
1989–90	6,038.4	1,983.7	8,022.1	1,314.2	10,239.3	19,575.6
1990–91	5,197.0	1,689.5	6,886.5	1,272.4	8,947.9	17,106.8

Source: Building Activity, Australia (8752.0).

At average 1984–85 prices, the value of total building work dropped significantly in 1990–91. Following a slight increase in 1989–90, the value of building work done at average 1984–85 prices fell by $2,552.3 million (or 13%) to $17,023.3 million.

All categories of building work suffered downturns with new residential building recording the largest drop of 14.3 per cent. Alterations and additions to residential buildings held up a little better, recording a drop of only $42.7 million (3.2%).

Engineering construction

This section contains estimates of engineering construction activity in Australia by both public and private sector organisations. These estimates together with data on residential and non-residential building provide a complete picture of construction activity in Australia.

VALUE OF ENGINEERING CONSTRUCTION WORK DONE, 1990–91
($ million)

	For the private sector	*For the public sector*	*Total*
Roads, highways and subdivisions	1,022.8	2,381.6	3,404.4
Bridges	11.0	229.0	240.0
Railways	17.7	406.8	424.4
Harbours	49.0	101.2	150.2
Water storage and supply	100.2	667.7	767.9
Sewerage and drainage	93.8	583.2	677.0
Electricity generation transmission and distribution	94.2	1,458.7	1,552.9
Pipelines	68.3	104.6	172.9
Recreation	321.3	160.8	482.1
Telecommunications	8.8	2,302.8	2,311.6
Heavy industry	1,329.1	126.1	1,455.2
Other	24.4	31.5	55.9
Total	**3,140.5**	**8,554.0**	**11,694.5**

Source: Engineering Construction Activity, Australia (8762.0).

The total value of engineering construction work done during 1990–91 was $11,694.5 million compared with $10,983.7 million during 1989–90. 73.1 per cent was for the public sector, and the remaining 26.9 per cent for the private sector.

Overall, significant expenditure was made in the categories of roads, highways and subdivisions (29.1% of total expenditure), telecommunications (19.8%), electricity generation transmission and distribution (13.3%), and heavy industry (12.4%).

For the private sector, the total value of engineering construction work done during 1990–91 was $3,140.5 million. Construction activity centred around the categories of heavy industry (42.3%), roads, highways and subdivisions (32.6%) and recreation (10.2%).

For the public sector the value of engineering construction work done was $8,554.0 million. Major construction activity was undertaken in the categories of roads, highways and subdivisions (27.8%), telecommunications (26.9%) and electricity generation transmission and distribution (17.0%).

HOUSING

Since Federation, Australian Governments, through their policies, have encouraged home ownership. A high level of home ownership is seen as promoting a stable, healthy and productive society. In addition, a strong housing construction industry provides substantial employment both within the industry and in associated sectors of the economy, such as banking, real estate and manufacturing.

In recent times, adequate, affordable housing has been identified as a government priority with the establishment of a National Housing Strategy in June, 1990.

This part of the chapter provides a profile of the various aspects of housing in Australia, based on information from the five-yearly Census of Population and Housing and from periodic surveys. Care should be taken when comparing statistics from different sources because of differences in the timing of individual statistical collections and in the conceptual bases for respective topics.

Number and types of dwellings

Number of dwellings

The number of dwellings is distributed broadly according to the population of each State and Territory. However the growth in the number of dwellings between 1981 and 1986 was variable. The Northern Territory had the highest growth with 35 per cent followed by Queensland with nearly a 20 per cent increase over the five year period. Of the rest, Western Australia and the Australian Capital Territory had an above average growth, while New South Wales and Victoria had, at less than nine per cent, the lowest growth, compared with the average for Australia of 11 per cent over the five year period.

NUMBER OF DWELLINGS BY STATE

	30 June 1981		*30 June 1986*		
State/Territory	*Occupied(a)*	*Unoccupied*	*Occupied(a)(b)*	*Caravans,etc.(c)*	*Unoccupied*
New South Wales	1,669,594	153,251	1,817,392	21,916	174,467
Victoria	1,243,451	124,522	1,351,118	9,475	143,264
Queensland	703,964	83,366	838,122	27,310	94,714
South Australia	433,841	42,407	474,456	3,162	48,546
Western Australia	405,997	42,100	458,762	10,749	53,851
Tasmania	136,269	17,765	149,484	658	19,470
Northern Territory	29,563	2,368	39,779	3,456	3,639
Australian Capital Territory	68,740	3,963	79,363	368	5,588
Australia	**4,691,419**	**469,742**	**5,208,476**	**77,094**	**543,539**

(a) Includes non-private dwellings. (b) Excludes caravans, etc., in caravan parks. (c) Includes occupied caravans, tents, cabins, etc., in caravan parks, and occupied boats in marinas.

Source: Unpublished ABS Population Census statistics.

Type of dwellings

The types of dwelling in Australia are dominated by the standard suburban cottage, here described as a 'separate house', which represents over 80 per cent of all homes. Of the other categories of dwellings the majority are either medium density dwellings (7%) or low-rise flats (8%).

There is a relatively high proportion of semi-detached houses in South Australia and Western Australia, (eight and six per cent respectively), compared with the average for Australia of three per cent. Australia has just under 10 per cent of its dwellings in the form of flats or units (low and high-rise). However, in the Northern Territory and New South Wales this proportion is greater than 15 per cent, while in Western Australia flats/units account for just under three per cent of dwellings.

TYPES OF DWELLING, FEBRUARY–MAY 1988
('000)

State/Territory	Separate house	Semi-detached house	Medium density	Low-rise flat/unit	High-rise flat	Total
New South Wales	1,490.8	43.4	109.1	237.9	39.7	1,920.9
Victoria	1,174.4	37.0	125.2	93.9	5.2	1,435.7
Queensland	771.9	16.8	53.0	50.4	5.3	897.4
South Australia	392.2	41.3	47.2	19.1	1.5	501.3
Western Australia	422.2	31.8	29.8	18.8	7.3	509.9
Tasmania	136.5	3.4	10.4	5.2	. .	155.5
Northern Territory	32.3	0.6	6.6	5.8	1.5	46.8
Australian Capital Territory	70.5	2.0	8.7	6.2	0.9	88.3
Australia	**4,490.8**	**176.5**	**389.8**	**437.3**	**61.4**	**5,555.8**

Source: Survey of Income & Housing Costs and Amenities: Characteristics of Dwellings, Australia, 1988 (4133.0).

Standard of housing and facilities

The following information on certain physical features and facilities of dwellings provides some indication of the standard of housing conditions in Australia.

Material of outer walls

The use of certain materials for outer walls is dictated by such factors as availability, cost, durability, appearance and climatic conditions. Changes in the materials used over time indicate changes in the characteristics of the housing stock.

The majority of new houses approved in Australia in 1990–91 were brick veneer (62.1%). The next most popular material was double brick with 16.6 per cent of the total, followed by timber (6.8%) and fibre cement (4.9%).

The pattern across the States and Territories shows brick veneer dominating in every case except in Western Australia and Northern Territory where double brick is most used. In Western Australia 85.4 per cent of new houses approved are double brick; in the Northern Territory the figure is 50.3 per cent. The largest percentage of approvals for timber construction was in Tasmania (18.3% of Tasmanian approvals).

NUMBER OF NEW HOUSES APPROVED BY MATERIAL OF OUTER WALLS AS A PROPORTION OF TOTAL STATE, 1990–91
(per cent)

Material of outer wall	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
Double brick(a)	14.1	1.1	5.8	5.7	85.4	6.9	50.3	1.8	16.6
Brick veneer	71.5	60.5	75.5	73.8	4.2	68.8	1.7	91.9	62.1
Timber	7.0	6.8	9.4	0.9	3.7	18.3	2.2	0.4	6.8
Fibre cement	5.9	1.7	7.3	5.5	4.5	3.0	1.4	0.1	4.9
Other	1.4	1.3	2.0	0.4	2.2	3.0	44.4	2.1	1.9
Not stated	0.1	28.7	—	13.7	—	—	—	3.7	7.7

(a) Includes houses constructed with outer walls of stone and concrete.

Source: Building Approvals Microfiche Service, Australia (8734.0).

Number of bedrooms

The most readily available indicator of dwelling size is the number of bedrooms. The table below shows the overwhelming dominance of three bedroom houses. Two-thirds of all separate houses, and half of all dwellings, have three bedrooms. Two bedroom dwellings predominate for all categories other than separate houses, accounting for between a half to two-thirds of semi-detached homes, medium density flats, low-rise and high-rise units.

NUMBER OF DWELLINGS BY TYPE OF DWELLING AND NUMBER OF BEDROOMS FEBRUARY–MAY 1988 ('000)

Number of bedrooms	*Separate house*	*Semi-detached house*	*Medium density*	*Low-rise flat/unit*	*High-rise flat*	*Total*
One	69.1	17.7	85.0	120.7	22.5	314.9
Two	711.7	84.0	239.0	288.6	31.8	1,355.0
Three	2,739.4	68.5	60.2	27.0	7.1	2,902.2
Four	831.7	5.5	5.7	1.1	. .	844.0
Five or more	138.9	0.7	. .	. .	. .	139.7
Total	**4,490.8**	**176.5**	**389.8**	**437.3**	**61.4**	**5,555.8**

Source: Survey of Income & Housing Costs and Amenities: Characteristics of Dwellings, Australia, 1988 (4133.0).

Undercover parking

Parking is a valued facility in most urban areas, particularly in the inner suburbs of cities.

Over one-fifth of all dwellings have no undercover parking. Almost half of high-rise flats and semi-detached dwellings, which tend to be concentrated in inner urban areas, have no undercover parking.

Approximately half of separate houses have garages and a quarter have carports, 10 per cent have both and 20 per cent have neither. Dwellings other than separate houses which have undercover parking, tend to have a higher proportion of carports to garages.

NUMBER OF DWELLINGS BY TYPE OF DWELLING AND TYPE OF UNDERCOVER PARKING AVAILABLE, FEBRUARY–MAY 1988 ('000)

Undercover parking	*Separate house*	*Semi-detached house*	*Medium density*	*Low-rise flat/unit*	*High-rise flat*	*Total*
None	815.7	83.3	118.4	170.3	27.5	1,215.1
Carport only	1,068.9	48.4	142.4	128.3	16.0	1,403.9
Garage only	2,181.5	41.1	122.7	137.0	16.3	2,498.6
Both	424.7	3.7	6.4	1.7	1.5	438.1
Total dwellings	**4,490.8**	**176.5**	**389.8**	**437.3**	**61.4**	**5,555.8**

Source: Survey of Income & Housing Costs and Amenities: Characteristics of Dwellings, Australia, 1988 (4133.0).

Household energy usage

In 1985–86 almost five million households used electricity. Over two million households used gas, either mains or bottled, while just over one million used wood, coal or briquettes.

NUMBER OF DWELLINGS AND AVERAGE ANNUAL ENERGY CONSUMPTION BY TYPE OF ENERGY USED, 1985–86

Type of energy used	*Number of dwellings ('000)*	*Megajoules (MJ)*
Electricity	4,907.6	36.3
Reticulated (mains) gas	1,754.5	54.4
Bottled gas	418.7	22.3
Wood/solid fuel	1,068.6	33.0
Oil	395.6	31.4
Kerosene	323.0	25.4
Solar energy	296.9	27.7
Other fuels	21.0	27.2

Source: National Energy Survey: Annual Consumption of Reticulated Energy by Households, Australia (8213.0).

Many households use a combination of energy sources. The table below shows the number of dwellings using the most significant combinations and the average annual household consumption of energy. These statistics reinforce the dominance of electricity as the major source of energy. One-third of all dwellings have electricity as their only source of energy, while most of the other two-thirds have it in combination with other sources of energy.

The average annual consumption of energy varies. For energy combinations involving electricity and gas the average annual consumption was at least 55 megajoules. However, for households with electricity in combinations that exclude gas, the average annual consumption was less than 32 megajoules.

NUMBER OF DWELLINGS AND AVERAGE ANNUAL ENERGY CONSUMPTION BY TYPE OF ENERGY USED, 1985–86

Main energy combinations	*Number of dwellings ('000)*	*Megajoules (MJ)*
Electricity only	1,525.7	26.1
Electricity and gas only	1,370.8	55.7
Electricity and wood only	534.2	28.6
Electricity and oil only	227.3	31.2
Electricity and solar energy only	88.3	26.2
Electricity, gas and wood only	201.2	59.5
All other combinations	960.2	. .

Source: National Energy Survey: Annual Consumption of Reticulated Energy by Households, Australia (8213.0).

Household appliances and facilities

The table below shows the proportion of dwellings which had selected household appliances or facilities for each of the periods November 1980, June 1983 and the financial year 1985–86.

Nearly all households had a refrigerator, an oven, hotplates or burners and a hot water system, while over 90 per cent had a washing machine.

While the proportion of households with a freezer or clothes dryer had increased since 1980, by 1985–86 they were only found in half of Australia's homes. Also, while the proportions of homes in 1985–86 which had a microwave oven (30%) or a dishwasher (nearly 20%) are quite low, compared with other appliances the increase since 1980 was quite high, particularly for microwaves. Further increases are likely to have occurred since 1985–86.

Electricity provides the most common form of heating with more than 40 per cent of homes having electric heating in 1985–86, a slight decrease from nearly 45 per cent in June 1983. The proportion of homes with air conditioning increased from just over 27 per cent in November 1980 to more than 35 per cent in 1985–86. Half of all dwellings had some kind of roof insulation, but only 11 per cent of homes had a swimming pool.

DWELLINGS WITH HOUSEHOLD APPLIANCES OR FACILITIES
(per cent)

Appliance/facility	*November 1980*	*June 1983*	*1985–86*
Refrigerators	99.5	99.6	99.6
Freezer	43.0	46.0	46.4
Oven	. .	99.0	98.7
Hot plates/burners	. .	97.7	98.2
Microwave oven	3.5	10.0	29.9
Electric frypan/skillet	40.2	38.0	69.8
Vertical grill	8.9	6.9	15.4
Dishwasher	13.5	17.1	19.7
Washing machine	91.2	91.8	92.9
Clothes dryer	38.5	45.2	48.1
Hot water system	97.8	98.7	98.9
Heater (of house)			
Electric	. .	44.2	41.7
Gas	. .	21.9	24.4
Oil	. .	7.6	5.6
Wood/solid fuel	. .	12.4	15.8
Air-conditioning	27.2	32.3	35.3
Insulation(a)			
Walls	10.6	12.1	15.0
Roof	41.9	43.7	49.8
Swimming pool	8.2	10.1	11.5

(a) Excludes high and low-rise flats or units, mobile or improvised dwellings, and dwellings for which the occupants did not know the type of insulation.

Source: National Energy Survey: Household Appliances, Facilities and Insulation, Australia (8212.0).

HOME OWNERSHIP AND RENTING

The statistics in the table below show the most common type of tenancy is outright ownership of a separate house. People who either own or are purchasing their own home account for 72 per cent of all households, with 81 per cent of all separate houses being occupied in this manner. For other dwelling types those households that rent their dwelling outnumber those who have equity in their dwelling (i.e., owners and purchasers) — twice as many in the case of low-rise flats or units, and one and a half times as many in the case of semi-detached houses.

Among renters, those going through a private landlord form the largest proportion regardless of the type of dwelling. In particular, tenants renting through private landlords in low-rise flats or units accounted for more than 80 per cent of all rental tenants in that type of dwelling. However, government rental tenants formed almost as high a proportion as those renting through private landlords in semi-detached houses (45% of all renters).

NUMBER OF HOUSEHOLDS BY TYPE OF DWELLING AND TENURE, FEBRUARY–MAY 1988 ('000)

Type of tenure	*Separate house*	*Semi-detached house*	*Medium density*	*Low-rise flat/unit*	*High-rise flat*	*Total*
Equity holders						
Owners	2,147.8	44.2	91.8	90.7	16.0	2,390.5
Purchasers	1,508.9	26.0	42.0	48.0	6.3	1,631.2
Renters from						
State housing authority	155.5	44.9	49.6	39.7	14.6	304.2
Private landlord	457.8	47.4	184.3	245.9	23.7	959.1
Other landlords	109.0	8.2	11.0	7.8	0.4	136.4
Living rent-free	111.9	5.7	11.1	5.2	0.5	134.4
Total households	**4,490.9**	**176.5**	**389.8**	**437.3**	**61.4**	**5,555.8**

Source: Survey of Income & Housing Costs and Amenities: Characteristics of Dwellings, Australia, 1988 (4133.0).

The table below shows the type of households in various tenancy situations in 1988. Nearly one-third of households that owned their dwelling outright were married couples without children. Nearly half of all purchasers were married couples with dependent children.

Among married couple households, the level of home ownership is very high. In 1988, 80 per cent of married couples, with or without dependent children, (i.e., without children at home) either owned or were purchasing their own home. In contrast, over 60 per cent of single person households were equity holders, while less than half of single parent families, especially those with dependent children were in this position.

Nearly one-quarter of single parent households — with or without dependent children — were government rental tenants, which is much higher than the proportion of government rental tenants (5%) among the total population.

NUMBER OF HOUSEHOLDS BY TYPE OF HOUSEHOLD AND TENURE, FEBRUARY–MAY 1988 ('000)

	Married couples with				*Single parent with*				
Type of tenure	*No dependents*	*Dependent children only*	*Dependent and non-dependent-children*	*Non-dependent children*	*Dependent children*	*Non-dependent children*	*Single person*	*Other house-holds*	*Total house-holds*
Equity holders									
Owners	747.4	418.5	139.4	256.3	32.3	13.5	524.3	258.9	2,390.5
Purchasers	317.8	762.1	101.3	98.2	53.1	8.6	148.8	141.3	1,631.2
Renters from									
State housing authority	45.7	61.5	7.5	12.9	49.1	10.5	78.4	38.7	304.2
Private landlord	165.7	205.3	16.1	21.7	60.5	6.3	241.4	242.1	959.1
Other landlords	21.9	57.8	4.5	4.7	6.2	1.4	28.0	11.9	136.4
Living rent-free	24.9	32.0	3.8	5.7	3.8	0.5	48.7	15.0	134.4
Total households	**1,323.3**	**1,537.2**	**272.6**	**399.4**	**204.9**	**40.7**	**1,069.6**	**708.0**	**5,555.8**

Source: Survey of Income & Housing Costs and Amenities: Characteristics of Dwellings, Australia, 1988 (4133.0).

The pattern of different types of tenure varies across States and Territories.

Victoria has the highest level of home ownership with more than 70 per cent either owning outright or paying off their home. In contrast, the Northern Territory has less than a third in a home they own or are paying off.

Purchasers are roughly a consistent proportion (between 20 and 30%) of the population across all States and Territories, except for the Australian Capital Territory where nearly 40 per cent are paying off their home. Home ownership levels across all States are about 40 per cent, except for the Australian Capital Territory (18%) and in the Northern Territory (8%), reflecting a combination of the relatively recent development of the Territories, and a generally younger and more mobile population.

TYPE OF TENURE, FEBRUARY–MAY 1988
(per cent)

Type of tenure	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Aust.*
Equity holders									
Owners	40.3	41.7	39.0	40.5	36.9	40.4	8.1	18.3	39.5
Purchasers	25.0	29.8	23.8	26.7	28.8	27.7	22.0	39.6	26.8
Renters from									
State housing authority	4.9	3.1	2.7	10.4	6.0	8.7	15.9	12.9	5.0
Private landlord	21.0	17.1	23.7	14.5	17.3	14.3	14.0	20.6	19.3
Other landlords	4.4	4.2	6.3	4.8	7.0	4.0	27.7	6.4	5.2
Living rent-free	4.4	4.1	4.4	3.1	3.9	4.9	12.3	2.2	4.2
Total households	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: Housing Survey: State and Territory Comparisons, 1988 (4134.0).

The Northern Territory and the Australian Capital Territory have a high proportion of renters, nearly 60 per cent and 40 per cent respectively, compared with the Australian average of 30 per cent. The Territories also have the highest proportion of government tenants, along with South Australia, all over 10 per cent, compared with an Australian average of only five per cent.

ACCESSIBILITY AND AFFORDABILITY OF HOUSING

The ability of people to acquire housing depends on two considerations — their ability to buy or rent housing in the first instance (housing accessibility) and their ability to subsequently maintain their housing financial commitments (house affordability). While not the only factor, the cost of acquiring and/or maintaining housing is a major component in the cost of living. Some measures of the cost and financing of housing are shown in the following statistics.

The unit used in the statistics on housing accessibility and affordability varies between 'household' and 'income unit', depending on the subject. For statistical purposes a household is a social unit, a group of people who live together in a single dwelling with common housekeeping arrangements. An income unit, in simple terms, is more in the nature of an economic unit, which may comprise only some members of one or more households, e.g., a married couple owning, buying or maintaining the cost of a dwelling, but excluding dependent or independent children living with them. To add some perspective to the respective statistics shown under these different terms, it is estimated that there were 5.6 million households and 6.2 million income units in 1988.

House Price Index

The prices of established houses and project homes over recent years are shown in the following tables.

ESTABLISHED HOUSE PRICE INDEX NUMBERS
(Base of each index: September quarter 1986 = 100.0)

Period	*Sydney*	*Melbourne*	*Brisbane*	*Adelaide*	*Perth*	*Hobart*	*Darwin*	*Canberra*
1987–88	121.1	109.9	109.3	103.9	112.6	105.2	98.3	104.8
1988–89	176.9	142.0	135.9	111.2	153.6	116.1	100.4	121.3
1989–90	185.9	155.4	157.7	121.8	172.6	124.6	101.6	129.2
1990–91	186.8	148.0	180.3	129.4	163.7	132.4	111.0	138.6
PERCENTAGE CHANGE FROM PREVIOUS YEAR								
1988–89	46.1	29.2	24.3	7.0	36.4	10.4	2.1	15.7
1989–90	5.1	9.4	16.0	9.5	12.4	7.3	1.2	6.5
1990–91	0.5	–4.8	14.3	6.2	–5.2	6.3	9.3	7.3

Source: House Price Indexes: Eight Capital Cities (6416.0).

PROJECT HOME PRICE INDEX NUMBERS
(Base of each index: September quarter 1986 = 100.0)

Period	*Sydney*	*Melbourne*	*Brisbane*	*Adelaide*	*Perth*	*Hobart*	*Darwin*	*Canberra*
1987–88	112.1	107.4	110.5	101.1	109.4	106.3	106.3	101.8
1988–89	139.6	121.0	135.9	110.7	134.2	114.9	116.2	109.4
1989–90	152.8	132.9	152.6	115.1	143.0	122.9	137.8	119.4
1990–91	157.3	137.2	159.1	120.3	131.5	130.8	145.1	132.1
PERCENTAGE CHANGE FROM PREVIOUS YEAR								
1988–89	24.5	12.7	23.0	9.5	22.7	8.1	9.3	7.5
1989–90	9.5	9.8	12.3	4.0	6.6	7.0	18.6	9.1
1990–91	2.9	3.2	4.3	4.5	–8.0	6.4	5.3	10.6

Source: House Price Indexes: Eight Capital Cities (6416.0).

The price index of materials used in house building is contained in the chapter on Prices.

Home buyers

In early 1988 nearly 27 per cent of all income units were paying off their dwelling. Of the 1.6 million home purchasers, nearly 60 per cent had bought their home from 1983 to 1987 inclusive. Only about 10 per cent of all income units paying off their home loan had purchased before 1973. As would be expected there has been an upward creep in the amount borrowed for the purchase of homes. For recent home purchasers nearly half had borrowed between $30,000 and $50,000, and nearly a quarter had borrowed between $50,000 and $70,000. The following data excludes all those home purchasers who had paid off their dwelling with either their income or the proceeds of the sale of another dwelling.

NUMBER PURCHASING THEIR HOME, BY AMOUNT BORROWED AND YEAR OF PURCHASE, FEBRUARY–MAY 1988
('000 income units)

Amount borrowed	*Before 1968*	*1968–1972*	*1973–1977*	*1978–1982*	*1983 or later*	*Total*
Under $10,000	59.3	28.3	6.5	2.9	8.4	105.3
$10,000 to 19,999	16.4	32.1	72.2	41.3	41.0	203.0
$20,000 to 29,999	4.5	9.0	60.6	127.2	140.9	342.2
$30,000 to 39,999	1.5	4.1	22.0	94.9	217.9	340.3
$40,000 to 49,999	1.8	1.4	7.2	51.2	205.4	267.1
$50,000 to 59,999	0.2	0.8	5.9	21.0	147.8	175.7
$60,000 to 69,999	. .	0.5	1.6	10.1	79.1	91.2
$70,000 to 79,999	. .	0.3	1.8	1.7	36.4	40.3
$80,000 to 89,999	0.4	. .	0.5	3.2	17.7	21.8
$90,000 to 99,999	. .	. .	0.4	1.7	18.8	20.8
$100,000 or more	0.5	0.5	1.2	4.7	25.5	32.5
'Don't Know'	0.8	. .	0.9	0.8	0.3	2.7
Total	**85.2**	**77.1**	**180.7**	**360.5**	**939.3**	**1,642.8**

Source: Housing Survey: Housing Finance of Purchasers, 1988 (4131.0).

The table below shows the relationship between mortgage payments and income for people paying off their home. Married couple income units paid, on average, more in mortgage payments ($115 per week) than one parent income units ($88 per week) and one person income units ($99 per week). However, one parent income units paid the greatest proportion of their income in mortgage payments, on average one-quarter of their income.

For married couples and one person income units, the average weekly mortgage payment was higher for those in flats or units than for those in houses. However for one parent income units, the greatest mortgage payments were paid (on average $115 per week) by those in medium density housing (flats/units). This group paid the highest proportion of their income as mortgage payments, compared with all other groups in all types of dwellings.

MORTGAGE PAYMENTS AND INCOME OF THOSE PURCHASING THEIR HOME IN 1988 BY TYPE OF DWELLING AND INCOME UNIT

Type of income unit	*Separate house*	*Medium density*	*Flats/ units*	*Total*
Married couple				
Mean weekly mortgage payments ($)	113	149	159	115
Mean weekly income ($)	685	837	787	689
Mortgage payments as a proportion of income (%)	16.5	17.8	20.2	16.7
One parent				
Mean weekly mortgage payments ($)	88	115	72	88
Mean weekly income ($)	356	432	518	365
Mortgage payments as a proportion of income (%)	24.6	26.6	14.0	24.2
One person				
Mean weekly mortgage payments ($)	95	103	110	99
Mean weekly income ($)	428	449	495	445
Mortgage payments as a proportion of income (%)	22.2	23.0	22.3	22.3

Source: Survey of Income & Housing Costs and Amenities: Housing Occupancy and Costs, Australia, 1988 (4130.0).

The following table on first home buyers (during the years 1988 to 1990) reflects the relationship between income and the price of dwellings. Of houses costing less than $62,500, 40 per cent were purchased by households earning less than $27,500 per year. In contrast, of those houses costing more than $120,000, two-thirds were purchased by households earning more than $42,500 per year.

NUMBER OF FIRST HOMES PURCHASED BY PRICE AND HOUSEHOLD INCOME, 1988–90 ('000)

				Purchase price
Household income	*Less than $62,500*	*$62,500–$84,999*	*$85,000–$119,999*	*$120,000 or more*
Less than $27,500	30.9	13.2	16.3	13.3
$27,500 to $42,499	26.1	27.3	15.5	9.8
$42,500 to $54,999	14.6	18.7	18.3	14.1
$55,000 or more	5.8	8.2	26.3	31.7
Total dwellings	**77.3**	**67.4**	**76.4**	**69.0**

Source: First Home Buyers, Australia, Preliminary, 1988–1990 (4135.0).

The following table shows that first home buyers between 1988 and 1990 formed a larger proportion of all home purchasers in Sydney and Melbourne than the average for Australia which was 31 per cent.

FIRST HOME BUYERS BY GEOGRAPHIC AREA, 1988–90

	Number of first home buyers ('000)	*Per cent of all buyers(a)*
Sydney	57.2	37
Melbourne	55.6	35
Brisbane	19.3	23
Perth	24.1	29
Other capital cities	29.8	34
Rest of Australia	104.1	28
Australia	**290.2**	**31**

(a) As a proportion of all owner occupied dwellings purchased during 1988–1990.
Source: First Home Buyers, Australia, Preliminary, 1988–1990 (4135.0).

For first home buyers from 1988 to 1990, 30 per cent of deposits were $40,000 or more while only 18 per cent of deposits were less than $5,000. For those deposits which were less than $5,000, nearly 70 per cent were by households earning less than $42,500 per year. While the trend of deposits is similar to that of purchase prices (i.e., the size increases with the size of the income), an exception exists with large deposits. Households earning less than $27,500 accounted for 30 per cent of deposits that were greater than $40,000. These may be households which have undergone a reduction in income e.g., retirees buying their first home with a retirement lump sum, young couples with a family and one partner out of the workforce, and retirees settling down in an area after a change from job requiring them to move regularly.

NUMBER OF FIRST HOMES PURCHASED, BY DEPOSIT SIZE AND HOUSEHOLD INCOME, 1988–90 ('000)

				Deposit size
Household income	*Less than $5,000*	*$5,000–$17,499*	*$17,500–$39,999*	*$40,000 or more*
Less than $27,500	20.7	13.2	13.4	26.4
$27,500 to $42,499	15.4	26.8	20.3	16.2
$42,500 to $54,999	9.1	22.4	14.4	19.9
$55,000 or more	6.6	19.4	20.7	25.3
Total dwellings	**51.8**	**81.8**	**68.8**	**87.8**

Source: First Home Buyers, Australia, Preliminary, 1988–1990 (4135.0).

Most first home buyers, regardless of the household income, achieved their deposit through savings. Among those households earning less than $27,500, 60 per cent obtained their deposits through savings, while 15 per cent used loans or gifts from family or friends. Among households earning more than $55,000 per year, 80 per cent obtained their deposits through savings.

NUMBER OF FIRST HOMES PURCHASED, BY MAIN SOURCE OF DEPOSIT AND SIZE OF HOUSEHOLD INCOME, 1988–90 ('000)

				Household income	
Main source of deposit	*Less than $27,500*	*$27,500–$42,499*	*$42,500–$54,999*	*$55,000 or more*	*Total*
Sale of land	1.5	5.4	3.3	1.5	11.7
Sale of assets	0.7	4.0	1.5	0.6	6.8
Savings	44.4	54.3	51.5	57.5	207.7
Personal loan from financial institution	2.4	0.9	—	0.5	3.8
Loan/gift/bequest from family/friends	11.2	7.0	5.3	5.9	29.4
Other	13.5	7.2	4.2	5.9	30.8

Source: First Home Buyers, Australia, Preliminary, 1988–1990 (4135.0).

Housing finance

The following table presents statistics of secured housing finance commitments made by significant lenders to individuals for the construction or purchase of dwellings for owner occupation.

In 1990–91, a total of $20,652.8 million was committed for the purchase of 291,984 dwellings. Of this, 74.7 per cent was used to purchase established dwellings, 18.2 per cent to finance construction of new dwellings and the remainder was used to purchase newly erected dwellings. Banks remain the predominant lenders and in 1990–91 provided $15,134.2 million to individuals in finance commitments.

HOUSING FINANCE FOR OWNER OCCUPATION: NUMBER OF DWELLING UNITS AND VALUE OF COMMITMENTS TO INDIVIDUALS, BY TYPE OF LENDER

	Banks	*Permanent building societies*	*Other lenders(a)*	*Total*
		CONSTRUCTION OF DWELLINGS		
		— number —		
1988–89	63,567	7,264	4,589	75,420
1989–90	52,091	3,576	6,021	61,688
1990–91	52,256	4,979	5,143	62,378
		— $ million —		
1988–89	3,335.1	443.4	246.8	4,025.3
1989–90	2,862.0	245.2	364.3	3,471.5
1990–91	3,043.9	372.9	352.1	3,768.9
		PURCHASE OF NEWLY ERECTED DWELLINGS		
		— number —		
1988–89	14,213	1,941	3,195	19,349
1989–90	8,148	1,309	4,861	14,318
1990–91	10,117	2,260	4,034	16,411
		— $ million —		
1988–89	922.3	135.0	180.2	1,237.5
1989–90	589.8	108.0	387.5	1,085.3
1990–91	773.2	201.5	345.5	1,320.2
		PURCHASE OF ESTABLISHED DWELLINGS		
		— number —		
1988–89	204,559	36,619	23,721	264,899
1989–90	150,276	21,179	30,687	202,142
1990–91	155,351	29,853	28,001	213,205
		— $ million —		
1988–89	13,730.5	2,346.1	1,448.4	17,525.0
1989–90	10,607.2	1,525.7	2,131.9	14,264.8
1990–91	11,317.1	2,143.0	1,963.1	15,423.2
		TOTAL		
		— number —		
1988–89	282,339	45,824	31,505	359,668
1989–90	210,515	26,064	41,569	278,148
1990–91	217,724	37,092	37,178	291,994
		— $ million —		
1988–89	17,987.9	2,924.4	1,875.5	22,787.8
1989–90	14,059.1	1,878.9	2,883.7	18,821.7
1990–91	15,134.2	2,857.9	2,660.7	20,652.8

(a) Includes cooperative housing societies.

Source: Unpublished ABS housing finance statistics.

Ongoing cost of housing

In addition to the initial cost of acquiring housing, there are the ongoing costs such as water and general rates, mortgage repayments, rent or board payments.

The table below shows mean weekly housing costs by type and size of income unit. Housing costs for married couples with dependent children show an average of $85 per week, and for single persons over 65 years only $16 per week. Generally, the cost of housing rose with the income, although there were some variations. In particular, the lowest income group (under $116) for one person (i.e., single) and one parent income units showed greater mean weekly housing costs than the next (higher) income group ($116 to $164). Among married couple income groups housing costs were higher for those income units earning less than $164 per week (i.e., the lowest two income decile groups), than for those earning between $165 and $300 per week (i.e., the next two income decile groups).

MEAN WEEKLY HOUSING COSTS, BY TYPE AND SIZE OF INCOME UNIT(a) FEBRUARY–MAY 1988

	Total weekly income decile groups										
Type of income unit	*Less than $116*	*$116–$164*	*$165–$215*	*$216–$299*	*$300–$383*	*$384–$465*	*$466–$576*	*$577–$702*	*$703–$918*	*Highest 10%*	*All groups*
Married couples											
Without dependent children	70	29	19	23	34	39	47	68	83	110	53
With dependent children	87	77	54	58	65	76	79	83	91	117	85
One parent	51	36	59	61	73	78	74	91	126	110	62
One person aged											
15–24 years	39	41	43	47	52	66	73	71	102	123	52
25–64 years	42	27	38	47	58	65	80	93	94	108	58
65 years and over	15	15	17	19	25	14	18	29	26	21	16
Total	**50**	**23**	**30**	**40**	**53**	**62**	**70**	**79**	**88**	**113**	**61**
Mean weekly income	54	130	192	255	338	421	515	634	799	1,299	465

(a) Excludes one person income units renting from parents/relatives in the same household, or income units living rent-free.
Source: Survey of Income & Housing Costs and Amenities: Housing Occupancy and Costs, Australia, 1988 (4130.0).

In the table above, care should be taken in interpreting the data in the first income decile (i.e., income units earning less than $116 per week). The relatively high housing costs in this category can be explained partly by the fact that at the time of the survey interview, some income units did not include any person who had a job or was receiving income of any significance. This could be because they:

- are relying on irregular income;
- have recently become unemployed; or
- are in the process of changing their job.

The table below shows housing costs for income units by nature of occupancy. Housing costs are highest for purchasers who spent an average of $126 per week on housing. Also, amongst renters, those renting privately on average pay almost twice as much as the State housing authority tenant. Other renters, on average, pay less than State housing authority tenants when their incomes are high but more when their incomes are low. This is probably because their rents do not significantly vary with income, whereas housing authority tenants pay rent according to income.

MEAN WEEKLY HOUSING COSTS BY TYPE OF TENURE AND SIZE OF INCOME UNITS(a), FEBRUARY–MAY 1988

	Total weekly income decile groups										
Type of tenure	*Less than $116*	*$116–$164*	*$165–$215*	*$216–$299*	*$300–$383*	*$384–$465*	*$466–$576*	*$577–$702*	*$703–$918*	*Highest 10%*	*All groups*
Equity holders											
Owners	14	9	11	12	14	15	15	16	18	21	14
Purchasers	143	53	63	85	98	109	115	123	134	173	126
Renters from											
Private landlord	80	59	79	77	76	81	92	105	115	161	88
Government	29	29	38	48	66	73	72	79	82	74	46
Other landlords	42	36	45	41	47	49	51	52	45	61	46
Total	**50**	**23**	**30**	**40**	**53**	**62**	**70**	**79**	**88**	**113**	**61**
Mean weekly income	54	130	192	255	338	421	515	634	799	1,299	465

(a) Excludes one person income units renting from parents/relatives in the same household, or income units living rent-free.
Source: Survey of Income & Housing Costs and Amenities: Housing Occupancy and Costs, Australia, 1988 (4130.0).

Ongoing housing costs as a proportion of income are an effective way of looking at affordability of housing across income units. For all types of dwellings, income units pay about 13 per cent of mean weekly income on housing. For separate houses, 12 per cent of income is spent on housing. However in flats, units and other dwellings, the percentages were higher (19% and 16% respectively). New South Wales was the State with generally the greatest proportion of income spent on housing regardless of the type of dwelling, closely followed by the Australian Capital Territory.

MEAN WEEKLY INCOME SPENT ON HOUSING, BY TYPE OF DWELLING FEBRUARY–MAY 1988
(per cent)

State/Territory	*Separate house*	*Flat/units*	*Other dwellings*	*Total*
New South Wales	12.7	20.7	18.2	14.1
Victoria	12.3	16.8	15.1	12.9
Queensland	12.4	17.1	17.3	13.0
South Australia	11.5	17.3	14.3	12.1
Western Australia	11.0	18.5	14.0	11.6
Tasmania	10.4	21.3	16.3	11.0
Northern Territory	11.8	14.0	15.4	12.7
Australian Capital Territory	13.2	19.8	16.7	13.8
Australia	**12.0**	**19.0**	**15.9**	**12.9**

Source: Housing Survey: State and Territory Comparisons, 1988 (4134.0).

The table below shows the proportion of income that different kinds of income units pay towards housing. As might be expected those paying off their homes and renters (government or private sector) pay a higher per cent of their income towards housing than those who own their home outright.

Different family structures show marked variations in the proportional outlay towards housing. One parent income units, regardless of type of tenancy, pay nearly one-quarter of their income on housing, while married couples pay less than one-eighth.

The group that appears to suffer the most financial stress are single parents who rent in the private sector. This group pays 37 per cent of their income towards housing.

HOUSING COSTS AS A PERCENTAGE OF INCOME(a) BY TYPE OF INCOME UNIT BY NATURE OF OCCUPANCY, FEBRUARY–MAY 1988
(per cent)

				Type of income unit
Nature of occupancy	*Married couple*	*One parent*	*One person*	*Total*
Equity holders				
Owners	2.9	4.8	4.9	3.3
Purchasers	18.9	27.7	24.9	19.7
Renters from				
State housing authority	16.2	19.2	20.9	17.4
Private landlord	20.4	37.0	20.7	21.4
Other landlords	7.9	22.2	14.8	11.5
Total households	**12.2**	**24.1**	**16.3**	**13.4**

(a) Excludes one person income units renting from parents or relatives in the same household, and all income units living rent-free.
Source: Unpublish ABS statistics from the 1988 Housing Survey.

GOVERNMENT INITIATIVES

Construction Industry Development Strategy

In December 1990 at a major industry gathering at Parliament House, the Prime Minister launched the Building and Construction Industry Reform Strategy.

The Strategy was subsequently developed by working parties reporting to the Ministers for Science and Technology; Employment, Education and Training; Industrial Relations; and Administrative Services. The proposals have now been finalised and Cabinet agreed to funding (with certain conditions) on 25 July 1991, subject to the formal agreement of the industry.

The Strategy is a framework for joint action by the industry and Government to address micro-economic reform in the industry. Its existence reflects the crucial importance of the construction sector to Australia's economic performance.

The Strategy targets seven key areas to be addressed:

- management of the construction process;
- technical efficiency;
- industrial relations;
- export orientation;
- the role of governments;
- understanding of the industry structure and operation; and
- the Public Works Enabling Mechanism.

National Housing Strategy

The National Housing Strategy was established in June 1990 and works closely with the Department of Health, Housing and Community Services.

The Strategy aims to develop a policy of housing reform that responds to the diverse and changing needs of all Australians and which can be sustained over the next two decades. To achieve this, in line with its terms of reference it will seek to:

- gain a better understanding of Australia's housing needs now and in the future;
- examine innovative mechanisms that will make quality housing more affordable, particularly for people with low to moderate incomes;
- focus on what is appropriate housing, giving special attention to those who are poorly housed or disadvantaged, and to people's differing needs through their lives;
- determine mechanisms which can regulate and assist the efficient supply of housing; and
- explore ways of obtaining better links between housing, employment opportunities, community services and aspects of urban infrastructure, such as transportation, to ensure minimum locational disadvantage.

The development of the Strategy is being undertaken in close cooperation with State Housing Authorities and in consultation with relevant Commonwealth, State, Territory and local government, non-government and other agencies.

A list of issue papers can be found in the bibliography at the end of the chapter.

Housing Industry Development Strategy

The Housing Industry Development Strategy was announced at the meeting of State and Federal Planning and Housing Ministers in December 1990. The strategy is being developed by the recently formed Australian Housing Industry Development Council, comprising representatives of industry, unions, manufacturers and the three levels of government.

The vision behind the strategy is for a housing industry which is more efficient, flexible and concerned with quality, producing a greater range of housing products, and which understands and is committed to the concept of international competitiveness.

The strategy's objectives are being achieved through the following three programs:

- The Regulatory Reform Program which aims to improve the regulatory environment within which the housing industry operates.
- The Urban Form and Land Use Program which aims to promote effective and efficient investment in land and infrastructure, increase the range of choices available in the housing market, and increase the supply of attached housing forms.
- The Industry Efficiency Program which deals with issues including skills formation, innovation, research and development, internationalisation, the removal of distortions in the labour market, and aspects of land supply.

Housing Development Program

The Housing Development Program (HDP) is a three year program that was established at the 1989 Planning Ministers' Conference. The aim of the program is to develop and promote cooperative Federal, State and Territory initiatives aimed at overcoming housing supply constraints.

The major objectives of the HDP are to:

- increase the flexibility and efficient use of residential land and urban infrastructure; and
- promote community acceptance of greater variety in housing, including higher density development.

Indicative Planning Council for the Housing Industry

The Indicative Planning Council (IPC) is a forum to promote and facilitate informed discussion between industry and government on short-term prospects for the industry, its supply of resources, projections of underlying demand for housing, and issues affecting industry activity and efficiency. It is composed of government and industry representatives, and has State and Territory committees.

The IPC has also commissioned a number of studies on issues relating to long-term demand for housing; the factors that determine interstate and interregional migration; and how to determine the optimum buffer stocks of residential land.

Commonwealth and State government housing assistance

A range of assistance programs has been developed to target assistance to households in the owner-occupied, public housing and private rental housing sectors. The Government provides funds for public housing, supported accommodation services, crises accommodation, mortgage and rent relief and home purchase assistance to individuals and families.

The bulk of Commonwealth financial assistance for housing is provided to the States and Territories through the Commonwealth–State Housing Agreement (CSHA). A new Agreement, covering all States, the Northern Territory and for the first time the Australian Capital Territory, commenced operation on 1 July 1990. The Agreement will run for a 10 year period and be reviewed every three years.

A housing authority exists in each State and Territory which is responsible for home construction, home loans, and the provision of homes on a rental basis, as follows:

- New South Wales — Department of Housing;
- Victoria — Ministry of Housing and Construction;
- Queensland — Department of Housing and Local Government;
- South Australia — South Australia Housing Trust;
- Western Australia — State Housing Commission of Western Australia;
- Tasmania — Tasmanian Development Authority and Department of Community Services;
- Northern Territory — Department of Lands and Housing; and
- Australian Capital Territory — The ACT Housing Trust.

Details of their activities were contained in *Year Book Australia 1991*.

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Housing Survey: Housing History and Intentions, 1988 (4132.0)

Housing Survey: State and Territory Comparisons, 1988 (4134.0)

National Energy Survey: Annual Consumption of Reticulated Energy by Households, Australia (8213.0)

National Energy Survey: Household Appliances, Facilities and Insulation, Australia (8212.0)

Public Sector Construction Activity, Australia, 1988-89 (8775.0)

Survey of Income & Housing Costs and Amenities: Characteristics of Dwellings, Australia, 1988 and 1990 (4133.0)

Survey of Income & Housing Costs amd Amenities: Housing Occupancy and Costs, Australia, 1988 and 1990 (4130.0)

Details for particular States are available from publications issued regularly by the Deputy Commonwealth Statistician in each State.

BIBLIOGRAPHY — *continued*

Other Publications

Publication schedule of the National Housing Strategy as at September 1991:

March 1991 Issues Paper 1: Australian Housing

April 1991 Issues Paper 2: The Affordability of Australian Housing

April 1991 Issues Paper 3: Financing Australian Housing

October 1991 Issues Paper 4: Efficient Supply of Affordable Land & Housing

May 1992 Issues Paper 5: Links Between Housing & Services

June 1992 Issues Paper 6: Groups with Special Housing Needs

September 1992 Issues Paper 7: Delivery & Management of Housing Services

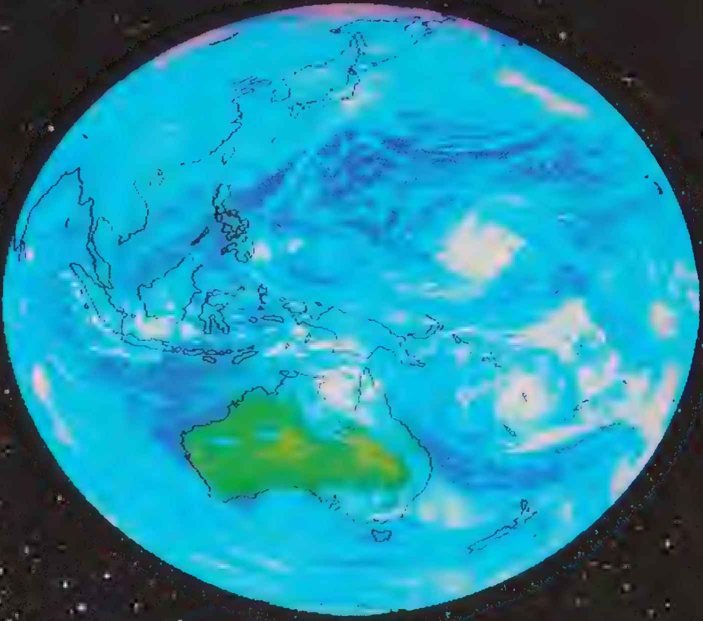
November 1992 Issues Paper 8: The National Housing Strategy

The annual reports of the Commonwealth and State Government Housing Authorities show further details of government activities in the field of housing.

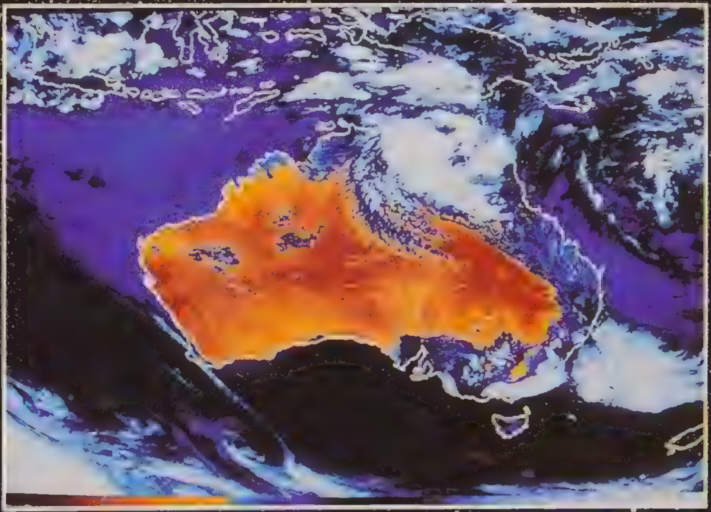
FOR MORE INFORMATION

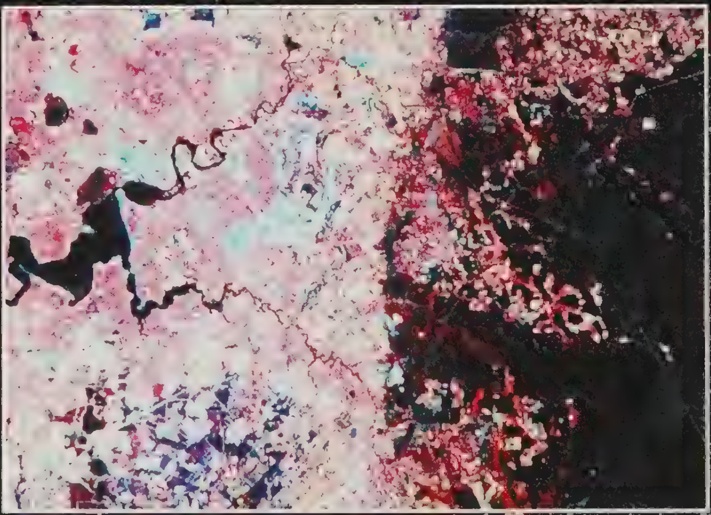
The ABS has a far wider range of information on Australia than that contained in the *Year Book*. Information is available in the form of regular publications, electronic data services, special tables and from investigations of published and unpublished data.

For further information contact ABS Information Services at one of the addresses listed on the page facing the Introduction to the *Year Book*.

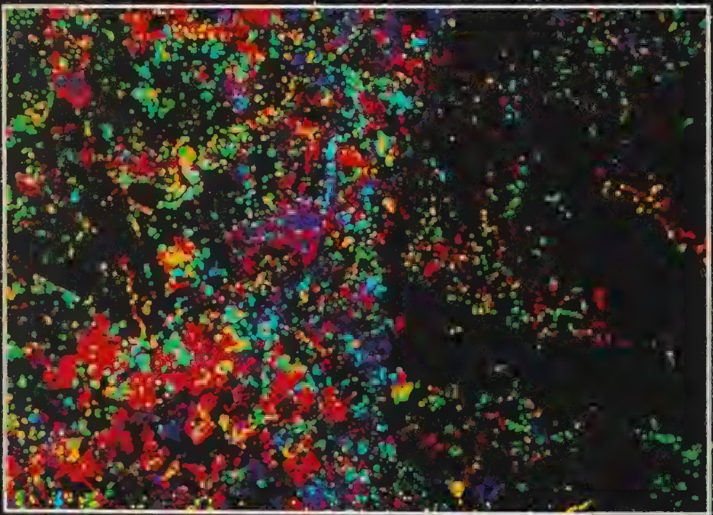


GMS – 4 *images, 9 January 1992. The full disk picture shows tropical cyclones* AXEL *(north Pacific);* BETSY *(south Pacific) and* MARK *(Gulf of Carpentaria). The detail of Australia below shows* MARK*, which later crossed the west coast of Cape York Peninsula.*

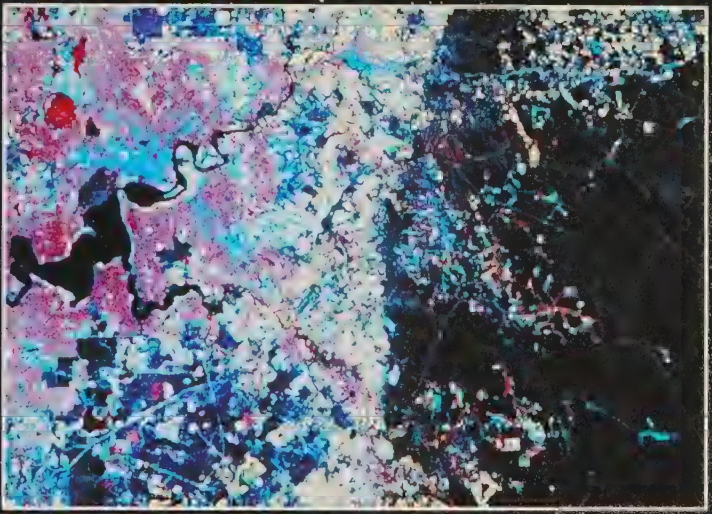




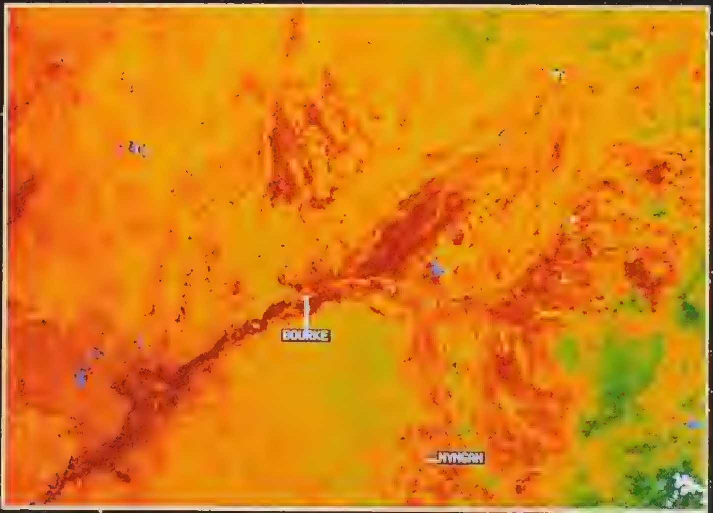
Perth by Landsat satellite, 1972



Information from the two images at top have been combined to show changes in vegetation between 1972 and 1988. Areas shown in red have experienced loss of vegetation cover, mainly due to urban growth. Green areas have gained vegetation.



Perth in 1988 (Landsat image)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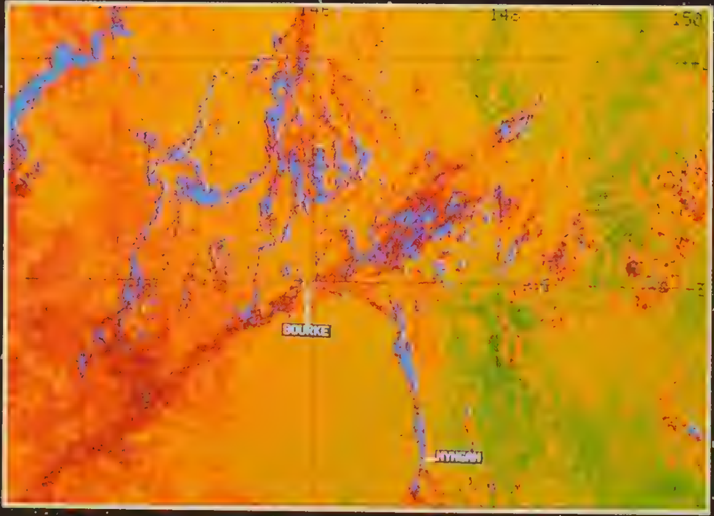
NYNGAN

Portions of images from the NOAA 11 meteorological satellite, before (above) and after (below) the Nyngan floods, March/April 1990.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International Space Year

(This special article has been contributed by Jeff Kingwell, Office of Space Science and Applications, CSIRO, Canberra.)

As 1992 is designated as 'International Space Year', it is appropriate to review Australia's place and participation in the various fields of activity in space which have increasing relevance for every day life.

SPACE IN AUSTRALIA'S HISTORY

There can be few countries whose history is as closely associated with space as Australia's.

Aboriginal society has continuously observed the heavens for longer than any other culture. Besides creating stories which helped them interpret the relationship between humans and nature, native Australians also used the changing star patterns to guide them to seasonal food sources. The arrival of Captain Cook's 'Endeavour' along the east coast in 1770 was a postscript to the real purpose of his journey — the observation of the passage of the planet Venus across the face of the Sun, in order to improve the accuracy of methods then used to calculate longitude.

When Governor Phillip led the First Fleet to the new colony of New South Wales in 1788, he was accompanied by the first astronomer of the modern period of Australian history, Lieutenant William Dawes. Dawes made many astronomical and chronological measurements (and the earliest recorded Australian weather observations) from an observatory on the western side of Sydney Cove, and this site soon figured prominently in the early intellectual life of the new colony.

Astronomy

Australia — a pioneer in the science of radioastronomy — has world-famous observatories in this field, particularly the Australia Telescope National Facility hosted by CSIRO. The 30 year old Parkes radio telescope, together with seven smaller and newer radio telescopes at Narrabri and Siding Springs, form the Australia Telescope Long Baseline Array. Signals from natural radio sources can be collected simultaneously by these sensitive antenna. When operated in this way, the Australia Telescope is much more powerful than any single radio telescope.

Past achievements of the Parkes radio telescope include its prominent role in the discovery of the first Quasar (intense astronomical energy sources, the most distant known), and tracking the encounter in 1986 of the European space probe 'Giotto' with Halley's Comet. Current plans of the Australia Telescope include its use in conjunction with Russian and Japanese-led space missions in the mid-1990s. These will use 10 metre radio telescopes on spacecraft in highly elliptical earth orbit to resolve fine details of quasars and galaxies. Part of the instrumentation for the Russian mission, 'Radioastron', has been designed by CSIRO and made by British Aerospace Australia of Adelaide and MITEC of Brisbane, with the joint funding of CSIRO and the Australian Space Office.

Other important astronomical facilities, relying on optical observations rather than detection of radiowaves, are also based in Australia. These include the Anglo–Australian Observatory, the UK Schmidt Telescope, and the Mount Stromlo and Siding Springs Observatories. Australian astronomers from these institutions have had a successful history of participation in foreign space observatory missions, such as the US Hubble Space Telescope and the European Hipparcos.

Defence interests

Australia's military space involvement commenced in 1946 with the Anglo–Australian Joint Project. In its most active period, from around 1955 to 1967, this Project employed thousands of personnel in the township of Woomera and over a rocket test range of some 20,000 square kilometres in central Australia.

Current military space activities continue through the operation of some of the largest satellite ground stations in the world. These, Pine Gap near Alice Springs and Nurrungar near Woomera, are joint United States (US)–Australian bases having a total staff of around 1,000, of whom approximately half are American. Pine Gap is a Signals Intelligence station, receiving information from US Ryolite, Vortex, Magnum, Chalet and other military satellites. Commentators have estimated that Pine Gap has a replacement value exceeding $US2 billion. Nurrungar is a control and data processing station for US satellites giving early warning of hostile rocket and missile launches.

A third large military satellite ground station is under construction in Kojarena, near Geraldton. This is wholly under Australian control, through the Defence Signals Directorate. Its capital cost exceeds $100 million.

Australian satellites and payloads

It was from Woomera on Wednesday 29 November 1967 that an Australian scientific satellite, WRESAT, was launched into earth orbit, using a US Redstone rocket. Australia thus became the fourth nation in the world (following the USSR, the USA, and France) to place into earth orbit a satellite launched from its own territory.

WRESAT carried instruments designed and built by the then Department of Supply's Weapons Research Establishment and the University of Adelaide to measure properties of the earth's upper atmosphere, solar radiation, and the temperature of the sun's outer atmosphere or corona. Interestingly, given current concerns about stratospheric ozone depletion, one instrument on WRESAT (which proved to be the only experiment on board to malfunction) was designed to study ozone concentrations at very high altitudes.

Woomera was also the launch site for the UK 'Prospero' scientific and engineering test satellite, on a Black Arrow rocket on 28 October 1971. No further satellites have been launched from Woomera, and most of the range equipment was either destroyed or sold for scrap over 10 years ago.

Proposals have been made to reopen Woomera as a satellite launch site (in addition to suggestions, discussed for about six years, to establish a commercially-operated satellite launch centre on the Cape York Peninsula). To date, however, attempts to re-establish an Australian satellite launching capability remain inconclusive.

Several Australian payloads have been launched since 1967 from overseas locations. These include the OSCAR V amateur radio satellite made at the University of Melbourne (launched 23 January 1970); flights in 1985 and 1988 on the US Space Shuttle of experiments in the aggregation of human red blood cells, designed by the late Dr Leopold Dintenfass of Sydney; and flights of influenza virus crystal growth experiments on the Russian MIR space station and the US Shuttle. The latter experiments were designed by Dr Graeme Laver at the John Curtin School of Medical Research in Canberra.

One of the most significant Australian payloads of the last two decades was the Endeavour prototype ultraviolet space telescope, carried on board the US Space Shuttle on 23 January 1992. The $4.5 million telescope, conceived at the Australian National University, was funded by the Department of Industry, Technology and Commerce and manufactured in Canberra by AUSPACE Ltd. It was designed to collect information on the Magellanic Clouds and other young, energetic astronomical sources of ultraviolet radiation.

Unfortunately, because of the nature of the orbit of the Shuttle which carried the telescope, it is doubtful whether useful scientific information was obtained from the mission. Nevertheless the flight does demonstrate the growing capabilities of a small but significant group of Australian companies which have obtained sophisticated engineering skills as a consequence of space projects funded through the Government's National Space Program, and from the research and development efforts in Universities and CSIRO.

Weather satellites

Australia's regular use of satellites for practical applications commenced around 1963, with the TIROS weather satellite. Routine information from Japan's Geostationary Meteorological Satellite and the US National Oceanic and Atmospheric Administration (NOAA) series now form an essential part of the Australian Bureau of Meteorology's tool kit for forecasting tropical cyclone intensification and movement, and for general forecasting purposes.

Information from the NOAA satellites is gathered at Bureau of Meteorology, university, CSIRO and government ground stations in Darwin, Townsville, Sydney, Melbourne, Hobart, Perth, Alice Springs and Casey (Australian Antarctic Territory). These satellites are widely used for environmental and oceanographic studies as well as for meteorology.

Communications

One of the most familiar uses of space technology in Australia is in telecommunications. Satellites now carry the majority of international telecommunications traffic from Australia, and television viewers are accustomed to 'live' transmissions of overseas sporting and news events. The first live international television broadcast in Australia was in November 1966, to the UK via the Carnarvon station of the Overseas Telecommunications Corporation (OTC).

OTC currently runs international gateway stations in Sydney, Melbourne, Ceduna and Perth, and also operates an important space installation in Gnangara, near Perth, for tracking and commanding telecommunications and scientific satellites. This work is done under contract to the international satellite communication groups INTELSAT and INMARSAT, and the European Space Agency; and on a collaborative basis with the National Space Development Agency of Japan and with Australian radioastronomers. The US National Aeronautics and Space Administration operates a similar station in Tidbinbilla near Canberra, to monitor and control unmanned NASA planetary missions, and to communicate with the Space Shuttle when it is orbiting above Australia.

Technologies and services developed in Australia are being exported by OTC to clients worldwide, with completed projects in Antarctica, Malta, Vietnam, Cambodia, Laos, and various Pacific Islands.

Growth in satellite telecommunications was so spectacular, and offered such great promise to a large, sparsely populated and remote country like ours, that the Australian Government decided in 1979 to create AUSSAT, one of the first national communications satellite systems in the world. AUSSAT Pty Ltd, a publicly-owned company, quickly established itself as an innovative deliverer of satellite television, telephone and other services and has been responsible for greatly improved outback communications. The first and second in AUSSAT's initial series of three satellites were launched by the US Space Shuttle (27 August and 27 November 1985), and the third by the European Arianespace company on 16 September 1987.

The second series of satellite, known as AUSSAT B, will carry a special L–band channel for mobile communications, and will have a design life of about 13 years in orbit. The two satellites will be launched by the Chinese Great Wall Corporation, from Xichang in south-west China, on the Long March 2E rocket. The first launch, scheduled for March 8, was delayed by a rocket ignition fault, and will be re-scheduled for later this year. The second satellite is due to be launched in August or September. AUSSAT, as one of the first foreign customers for Chinese commercial launches, secured very favourable terms for the launch contract.

Over eight per cent of the components of the AUSSAT B series, in terms of cost, were supplied by Australian companies and CSIRO, under subcontracts to Hughes Aircraft Company of the USA.

A number of factors, not related to the technology itself nor to the high efficiency of AUSSAT Pty Ltd within its prescribed mandate, resulted in poor economic performance by the company. In December 1991 it was sold by the Australian Government to Optus Communications, a consortium of Australian, British and United States companies. At the same time, the Government announced a merger of OTC with Telecom, with the merged body AOTC to compete with the Optus group. The sale to Optus will not affect the AUSSAT B launch plans.

Earth observation

Images of earth taken by space satellites such as the US Landsat and the French/Belgian/Swedish SPOT are now widely used for environmental monitoring, as well as for mapping and resource exploration. Direct transmissions from these commercially operated satellites are collected on computer tapes at the Alice Springs ground station of the Australian Centre for Remote Sensing (part of the Commonwealth Department of

Administrative Services). The tapes are flown to the Centre's office in Canberra, where they are processed into photographs or computer compatible products, and distributed to customers. Images and computer tapes can also be purchased directly from representatives of the satellite operators, such as SPOT Imaging Services in Sydney.

Both Landsat and SPOT rely on camera-like instruments to measure visible and infra-red band radiation emitted or reflected from the earth's surface. Newer earth observation satellites, such as the European Space Agency's ERS–1 launched in July 1991 and the Japanese JERS–1 due to be launched in February 1992, carry powerful radar to 'illuminate' the earth below, regardless of darkness or cloud cover. They gather information about wave and ice conditions, as well as giving images of the 'roughness' of the land surface, which can be related to vegetation conditions, terrain, and soil moisture.

Signals from ERS–1 are already being received at the Alice Springs ground station, and data from JERS–1 will also be collected there. A new ground station is being built in Hobart to extend the range of earth observation satellite reception over the southern ocean. This is known as the Tasmanian Earth Resources Satellite Station, and is being funded by CSIRO, the University of Tasmania, the Commonwealth Department of Industry Technology and Commerce's Australian Space Office, the Bureau of Meteorology and the Australian Centre for Remote Sensing.

The European ERS–1 satellite carries a number of other instruments, including the Along Track Scanning Radiometer which is designed to precisely measure ocean temperature. Such measurements are important indicators of changing climate patterns. The Radiometer — conceived in part by Dr Ian Barton of CSIRO — was jointly made by the UK, France and Australia, the Australian component being manufactured in Adelaide by British Aerospace Australia with funding support from the Australian Space Office and CSIRO.

Earth observation satellites are an irreplaceable source of information about global resources and environmental change. The Australian Government's investment in ground equipment and research and development programs has helped keep Australia at the forefront of earth observation applications and technology.

INTERNATIONAL SPACE YEAR

1992 is being celebrated as 'International Space Year' (ISY), following the suggestion of the late Senator Spark Matsunaga of Hawaii seven years ago. The ISY has been endorsed by numerous national governments and international organisations, including the UN General Assembly, the International Council of Scientific Unions, and the International Astronautical Federation.

1992 marks the 500th anniversary of the voyage of Christopher Columbus to the Americas, and the 35th anniversary of the International Geophysical Year which saw, in the launch of Sputnik 1 on 4 October 1957, the birth of the Space Age. The linking of these two past events with the International Space Year symbolises the spirit of discovery which is a driving force in exploration as well as in scientific research.

Many countries have set up public associations and scientific committees to promote the International Space Year. In Australia, the Academy of Science established a committee to improve the national coordination and planning of scientifically-oriented activities during the Year, while groups such as the National Space Society of Australia are planning special events to increase public awareness about space.

Senior officials from the world's leading space agencies and research institutions established the Space Agency Forum for the International Space Year to plan cooperative activities. Nearly 30 members and affiliates, including Australia's CSIRO, work together in this Forum. Its major aims are to demonstrate the practical and constructive benefits of space exploration, and to increase these benefits by encouraging international coordination in missions connected with Space Year.

The primary theme adopted by the Forum is 'Mission to Planet Earth', meaning the use of the vantage point of space to observe the earth, the only known home of life. Previous programs of planetary exploration have resulted in the creation of sensitive 'remote sensing' instruments and data handling systems. These are increasingly being applied to the discovery and management of the earth's natural resources and to document changes in the natural environment due to human influence.

The Space Agency Forum is planning 10 individual projects under the Mission to Planet Earth theme, each under one or two 'lead agencies'. Australia, through CSIRO (with financial support from the Australian Space Office), is leading the Land Cover Change Project of International Space Year.

This project is designed to demonstrate the use of satellite information for observing and understanding vegetation change; and the connection between these changes, climatic influence, and human activities (including urban growth, forestry, and agriculture).

A team led by Dr Dean Graetz in CSIRO's Division of Wildlife and Ecology in Canberra is carrying out the Project, which will result in a video, CD–ROM record and book showing examples of significant land cover changes in various parts of Australia, as revealed by a twenty-year long series of satellite observations. Lengthy records like these are necessary to distinguish long-term change from that due to seasonal and other short-term climatic variation.

Australian researchers from CSIRO and several Universities will also join in other 'Mission to Planet Earth' projects during 1992, including global measurements of sea surface temperature using information from US, European and Japanese satellites; and studies of ocean productivity, based upon ocean colour measurements (indicating the concentration of phytoplankton, at the base of the marine food chain).

Australian space-based research commencing in 1992 includes investigations of ocean currents, underwater mountains, and wave heights, using information from the joint French/US TOPEX–Poseidon radar altimeter satellite due to be launched from the Kourou Launch Centre in French Guiana, South America, around July. Other investigations include environmental, oceanographic, mapping and resource assessment studies based on information to be obtained from the Japanese Earth Resources Satellite, JERS–1, scheduled for launch from Tanegashima in southern Japan in February.

Other Australian activities marking International Space Year include a celebratory stamp issue by Australia Post and a commemorative $5 coin from the Royal Australian Mint.

International Space Year represents a period of reassessment of space programs, both internationally and in Australia. Perhaps modern day space explorers can learn from the achievements as well as the mistakes of Christopher Columbus 500 years previously, using information from the frontiers of knowledge to help build a wiser, more prosperous, and more cosmopolitan world.

ACKNOWLEDGEMENTS

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Mr William Barrett and Ms Jo Williams, OTC;
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and Dr Dean Graetz, CSIRO Division of Wildlife and Ecology.

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Chapter Twenty-three

Transport and Communications

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THE TRANSPORT INDUSTRY

The following table provides an overview of the transport industry — that is, those establishments whose prime activity is engaging in one or more of the different modes of transport. These statistics, obtained from the ABS Transport Industry Survey of such establishments, are the latest available which provide an overview across the industry and while they relate to 1983-84 they give some indication of the size and structure of the industry.

Road freight transport contributed the highest figures for value added and employment, although it was second to rail transport for wages and salaries.

SUMMARY OF OPERATIONS BY THE TRANSPORT INDUSTRY, 1983–84

ASIC Code	*Industry description*	*Establishments at 30 June 1984*	*Average employment over whole year(a)*	*Wages and salaries (b)*	*Turnover*	*Stocks*		*Total purchases, transfers in and selected expenses*	*Value added*	*Fixed capital expenditure less disposals*
						Opening	*Closing*			
		no.	no.	$m	$m	$m	$m	$m	$m	$m
511	Road freight transport	32,943	99,606	902.5	5,187.3	47.4	49.8	2,921.8	2,267.8	237.6
512	Road passenger transport	10,615	45,841	571.2	1,528.6	34.0	37.4	593.5	938.5	56.4
5200	Rail transport	12	86,721	1,688.5	3,314.8	178.9	179.4	1,417.5	1,897.8	406.9
53	Water transport	165	8,978	212.7	1,238.9	14.9	14.7	814.5	424.3	23.2
54	Air transport	334	23,597	600.8	2,958.0	20.4	19.9	1,747.9	1,209.6	178.1
51–54	**Total transport**	**44,069**	**264,743**	**3,975.7**	**14,227.6**	**295.6**	**301.2**	**7,495.2**	**6,738.0**	**902.2**

(a) Includes working proprietors and partners. (b) Excludes the drawings of working proprietors and partners.
Source: Transport Establishments: Details of Operations by Industry Class, Australia (9104.0).

As the above table shows, road freight transport is the biggest component of the transport industry in terms of most of the items. However, road freight also comprises a substantial part of the activity of establishments engaged primarily in activities other than transport, such as wholesale and retail trade. For this reason, to provide a complete picture of road freight transport, the ABS complemented the Transport Industry Survey by also conducting the Business Vehicle Survey in respect of 1983-84, which covered enterprises which engaged in road freight transport as part of some other main activity. Statistics from this survey are contained in the later section in this chapter on road freight activity.

Other sections of the chapter provide information on other aspects and activities of transport, which, although they may fall outside the transport industry as defined in the Australian Standard Industrial Classification, nevertheless provide a broad picture of the subject. Because of their different sources and periods to which they relate the various statistics may not be strictly compatible and comparable.

ROAD TRANSPORT

Length of road system

Information on lengths of roads open for general traffic in Australia, at the latest dates available, classified according to certain broad surface groups as defined by the respective States and Territories are as follows.

ALL ROADS OPEN FOR GENERAL TRAFFIC: LENGTHS, 30 JUNE 1990
(kilometres)

Surface of roads	*NSW(a)*	*Vic.(b)*	*Qld*	*SA*	*WA(c)*	*Tas.(d)*	*NT(e)*	*ACT*	*Aust.*
Bitumen or concrete	77,803	68,408	57,652	24,347	43,031	9,475	5,701	2,445	288,702
Gravel, crushed stone or other improved surface	64,572	48,287	45,187	—	45,751	13,512	5,940	170	217,932
Formed only	32,438	23,580	51,356	70,560	36,523	235	4,605	—	223,509
Cleared only	20,616	21,009	16,637	—	17,624	166	4,144	—	82,121
Total	**195,429**	**161,284**	**170,832**	**94,907**	**142,929**	**23,388**	**20,390**	**2,615**	**810,264**

(a) Excludes roads designated but not trafficable. Excludes Lord Howe Island and the unincorporated area of the Western Division. (b) Excludes roads coming under the responsibility of the State Electricity Commission and Forests Commission. (c) Excludes approximately 25,300 km of forestry roads. (d) Forestry roads have been reclassified from cleared only to gravel. (e) Excludes roads in towns and Local Government Areas.

Source: Derived mainly from local government sources in each State and the ACT Department of Urban Services.

The following table indicates the lengths of various classes of roads proclaimed or declared under the State transport Acts.

PROCLAIMED OR DECLARED ROADS: LENGTHS, 30 JUNE 1988(a)
(kilometres)

Class of road	*NSW(b)*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*Aust.*
State highways and freeways	10,397	7,537	10,417	—	7,949	1,919	38,219
Trunk roads	—	—	225	12,449	—	—	n.a.
Ordinary main roads	(c)25,124	14,793	8,224	—	7,460	1,259	n.a.
Total main roads	*35,521*	*22,330*	*18,866*	*12,449*	*15,409*	*3,178*	*107,753*
Secondary roads	n.a.	n.a.	6,373	—	8,645	296	n.a.
Development roads	n.a.	n.a.	8,712	—	—	45	n.a.
Tourist roads	n.a.	n.a.	—	—	—	211	n.a.
Other roads	n.a.	n.a.	—	—	—	—	n.a.
Total other roads	*n.a.*	*n.a.*	*15,085*	—	*8,645*	*552*	*n.a.*
Total	**n.a.**	**n.a.**	**33,951**	**12,449**	**24,054**	**3,730**	**n.a.**

(a) Latest data available. (b) Includes ACT. (c) A combination of trunk and ordinary main roads.

Source: Derived mainly from local government sources in each State and the ACT Department of Urban Services.

Registered motor vehicles

Censuses of registered motor vehicles have been conducted in respect of 31 December 1955 and 1962 and 30 September 1971, 1976, 1979, 1982, 1985 and 1988 (a further survey, not yet published, was conducted in October 1991). Summary details of registered motor vehicles are also compiled as at 30 June each year from information supplied by the various motor vehicle registration authorities in the States and Territories. They cover vehicles owned by private individuals, local government authorities, State Governments, and the Commonwealth Government (excluding those belonging to the defence services). Figures from the censuses differ from the corresponding year's figures compiled for the annual vehicles on register series. These inconsistencies result from different dates of recording and because, for some States and Territories, the annual figures include vehicles where the registration has lapsed but the details have not been removed from the register, whereas the census excludes such vehicles.

There were 9,418,007 registered motor vehicles (excluding tractors, plant and equipment, caravans and trailers) in Australia at 30 September 1988. This represents an increase of 458,278 vehicles (5.1%) since 30 September 1985, the smallest three year increase since the triennial Motor Vehicle Census was introduced in 1976.

MOTOR VEHICLE CENSUS, 30 SEPTEMBER 1988
('000)

State/Territory	Motor cars and station wagons	Utilities and panel vans	Trucks: Rigid	Trucks: Articulated	Trucks: Non-freight-carrying	Buses	Motor cycles	Total (a)
New South Wales	2,258.7	390.0	171.8	14.9	14.2	54.1	89.9	2,993.6
Victoria	2,042.8	196.0	205.1	13.7	13.4	14.3	70.8	2,556.0
Queensland	1,131.1	297.7	53.8	8.4	5.4	10.5	60.4	1,567.2
South Australia	681.5	90.0	48.7	4.1	7.4	3.0	34.4	869.1
Western Australia	679.1	136.7	74.5	5.1	8.7	7.5	35.4	947.0
Tasmania	211.0	43.2	17.1	1.6	3.2	1.9	6.4	284.3
Northern Territory	35.7	18.2	1.7	1.0	0.3	0.7	3.1	60.7
Australian Capital Territory	118.9	11.7	3.7	0.3	0.7	1.2	3.7	140.2
Australia	**7,158.8**	**1,183.5**	**576.3**	**48.9**	**53.4**	**93.2**	**304.0**	**9,418.0**

(a) Excludes tractors, plant and equipment, caravans and trailers.
Source: Motor Vehicle Census: Australia (9309.0).

As shown in the following table, the number of motor vehicles (excluding motor cycles) has steadily increased in every year between 1985 and 1990. In contrast, the number of motor cycles has decreased markedly over the same period.

MOTOR VEHICLES ON REGISTER, BY TYPE OF VEHICLE
('000)

30 June	Motor cars and station wagons	Utilities, trucks, panel vans, other truck type vehicles and buses	Total (excludes motor cycles)	Motor cycles
1985	6,842.5	1,886.5	8,729.1	389.2
1986	6,985.4	1,930.6	8,916.0	374.5
1987	7,072.8	1,949.8	9,022.7	351.0
1988	7,243.6	1,977.6	9,221.1	323.3
1989	7,442.2	2,047.3	9,489.5	316.6
1990	7,672.3	2,104.3	9,776.6	304.0

Source: Motor Vehicle Registrations, Australia (9304.0).

Motor vehicles (excluding motor cycles) on register per 1,000 of population were also higher in 1990 than in 1985 for every State and Territory. Tasmania had the highest ratio in 1990 with 630.5 vehicles for every 1,000 people.

MOTOR VEHICLES(a) ON REGISTER PER 1,000 OF POPULATION

30 June	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
1985	520.7	571.1	573.7	572.0	589.4	588.0	467.4	488.8	553.9
1986	526.0	575.1	574.3	582.5	590.7	596.8	478.1	483.2	558.2
1987	522.3	581.0	562.6	575.5	582.0	598.1	459.7	497.3	555.3
1988	523.8	589.8	568.0	580.3	587.4	607.2	440.5	498.5	559.9
1989	532.7	583.3	574.9	584.9	597.0	617.0	465.8	512.3	564.6
1990	537.8	590.0	580.5	593.3	612.2	630.5	479.7	539.2	572.3

(a) Excludes motor cycles, tractors, plant and equipment, caravans and trailers.
Source: Motor Vehicle Registrations, Australia (9304.0).

Registrations of new motor vehicles

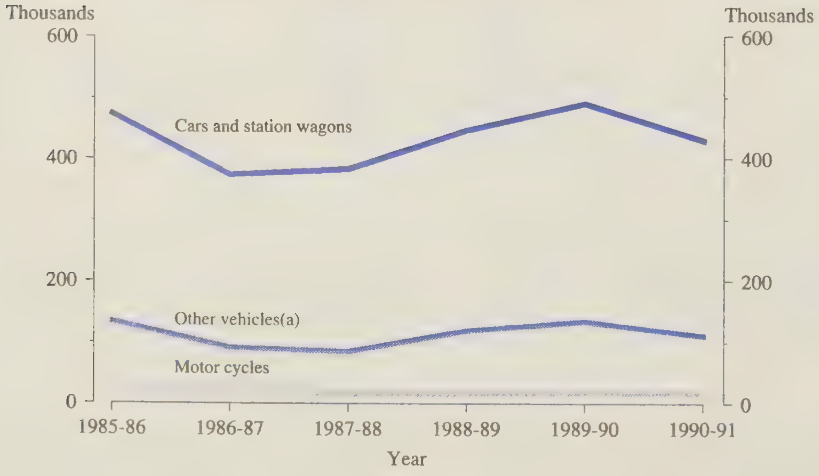
Registrations of new vehicles processed by motor vehicle registration authorities in all States and Territories are shown in the following table and chart.

REGISTRATIONS OF NEW MOTOR VEHICLES, BY TYPE OF VEHICLE

	Motor cars and station wagons	*Utilities*	*Panel vans*	*Trucks*		*Other truck type vehicles*	*Buses*	*Total (excludes motor cycles)*	*Motor cycles*
				Rigid	*Articu-lated*				
1984–85	510,893	54,507	45,582	44,422	3,627	1,952	13,847	674,830	45,879
1985–86	476,488	46,499	33,138	39,033	4,029	2,159	10,868	612,214	35,906
1986–87	376,080	32,485	20,143	28,693	3,149	1,664	6,587	468,801	23,199
1987–88	384,203	29,821	18,292	28,596	2,811	1,602	5,495	470,820	18,532
1988–89	447,913	44,260	28,070	36,973	3,669	1,668	6,671	569,224	19,076
1989–90	492,235	49,404	32,617	41,074	4,065	1,815	6,552	627,762	20,453
1990–91	430,874	42,499	29,896	29,173	2,142	1,648	6,222	542,454	20,506
1990–91									
NSW	149,753	13,277	20,229	10,429	800	427	3,971	198,886	6,151
Vic.	107,645	5,039	649	10,377	523	278	521	125,032	4,513
Qld	78,121	14,295	3,656	2,068	410	448	658	99,656	4,267
SA	34,924	2,991	1,588	1,627	148	357	197	41,832	1,510
WA	36,926	3,899	2,608	3,497	138	74	658	47,800	2,784
Tas.	9,968	1,248	526	769	64	40	102	12,717	446
NT	3,407	1,213	193	89	53	12	56	5,223	461
ACT	10,130	537	447	317	6	12	59	11,508	374

Source: Motor Vehicle Registrations, Australia (9304.0).

REGISTRATIONS OF NEW MOTOR VEHICLES
TYPE OF VEHICLE



(a) Other motor vehicles include utilities, trucks, panel vans, other truck type vehicles and buses.

Source: Motor Vehicle Registrations, Australia (9304.0).

Use of motor vehicles

A Survey of Motor Vehicle Use is undertaken by the ABS every three years. The following information is taken from the 1988 survey (a further survey was conducted in October 1991, for which the results are not yet available).

Motor vehicles in Australia travelled a total of 153,915 million kilometres in the twelve months ending September 1988, an increase of almost 10 per cent over the corresponding period in 1985. The average distance travelled annually by all vehicles was 16,640 kilometres, an increase of almost four per cent over the corresponding 1985 period. Of this, 21 per cent was for business purposes, 26 per cent for travel to and from work and 53 per cent for private purposes. Rigid trucks travelled a total of 7,840 million kilometres, while articulated trucks travelled 3,836 million kilometres. Average distances travelled for all vehicle types except non-freight carrying trucks and motor cycles showed increases on 1985.

TOTAL ANNUAL KILOMETRES TRAVELLED, BY VEHICLE TYPE AND PURPOSE OF TRAVEL TWELVE MONTHS ENDED 30 SEPTEMBER 1988

(million kilometres)

Type of vehicle	*Laden business*	*Unladen business*	*Total business(a)*	*To and from work, paid and unpaid*	*Private*	*Total*
Cars and station wagons	. .	. .	24,761.9	29,743.4	62,134.5	116,639.8
Motor cycles	. .	. .	195.2	696.5	1,032.3	1,924.0
Utilities and panel vans	9,834.0	3,284.7	13,333.6	3,470.9	5,177.1	21,981.6
Rigid trucks	5,441.5	1,857.6	7,299.1	280.6	260.3	7,839.9
Articulated trucks	2,892.4	932.2	3,824.6	10.0	1.2	3,835.71
Non-freight-carrying trucks	. .	. .	237.1	13.9	10.1	261.1
Buses	. .	. .	1,409.2	7.7	15.9	1,432.8
Total	**18,167.9**	**6,074.5**	**51,060.5**	**34,223.0**	**68,631.4**	**153,914.9**

(a) Includes the total kilometres travelled for business purposes of cars, station wagons, motor cycles and utilities and panel vans predominantly used for private purposes. The dissection of business travel into laden/unladen was not sought for these vehicles.

Source: Survey of Motor Vehicle Use, Australia (9208.0).

AVERAGE KILOMETRES TRAVELLED BY TYPE OF VEHICLE AND AREA OF OPERATION TWELVE MONTHS ENDED 30 SEPTEMBER 1988

('000 kilometres)

	Area of operation					
Type of vehicle	*Capital city(a)*	*Provincial urban*	*Other areas of State or Territory*	*Total within State of registration*	*Interstate*	*Australia*
Cars and station wagons	11.7	6.0	6.5	15.1	4.0	15.8
Motor cycles	6.2	3.5	3.6	6.2	3.9	6.5
Utilities and panel vans	15.7	9.2	12.1	18.1	6.2	18.6
Rigid trucks	20.2	12.5	11.8	19.0	9.1	19.4
Articulated trucks	27.5	22.9	44.4	59.2	64.2	78.7
Non-freight-carrying trucks	12.2	7.8	5.7	11.1	3.9	11.3
Buses	27.6	17.4	22.5	31.9	34.8	35.3
Total	**12.3**	**6.6**	**7.7**	**15.7**	**4.9**	**16.4**

(a) Includes all of ACT for ACT registered vehicles.

Source: Survey of Motor Vehicle Use, Australia (9208.0).

The following information relates the State or Territory of commercial vehicle registration to the area in which vehicles actually operated. For example, for vehicles registered in New South Wales, 86 per cent of the tonne-kilometres travelled were within the State, whereas for the Australian Capital Territory, it was only 62 per cent.

TOTAL ANNUAL TONNE-KILOMETRES(a) TRAVELLED: STATE/TERRITORY OF REGISTRATION BY AREA OF OPERATION, TWELVE MONTHS ENDED 30 SEPTEMBER 1988
(million tonne-kilometres)

State/Territory of registration	*Capital city(b)*	*Provincial urban*	*Other areas of State/ Territory*	*Total within State of registration*	*Interstate*	*Australia*
New South Wales	7,741.4	3,194.9	10,546.9	21,483.2	3,443.7	24,926.9
Victoria	6,927.9	1,677.1	8,089.4	16,694.5	6,190.3	22,884.8
Queensland	2,797.7	2,631.3	4,750.7	10,179.7	3,154.0	13,333.8
South Australia	1,631.4	. .	3,725.4	5,356.8	3,056.3	8,413.0
Western Australia	2,504.7	. .	7,120.9	9,625.7	536.4	10,162.1
Tasmania	490.1	914.1	1,078.3	2,482.5	40.4	2,522.8
Northern Territory	262.6	. .	1,727.9	1,990.5	696.6	2,687.0
Australian Capital Territory	226.0	. .	. .	226.0	372.3	598.3
Australia	**22,581.9**	**8,417.4**	**37,039.6**	**68,038.8**	**17,490.1**	**85,528.8**

(a) Total annual tonne-kilometres is the product of reported average load and total business kilometres travelled while laden, for each vehicle. (b) Includes all of ACT for ACT registered vehicles.

Source: Survey of Motor Vehicle Use, Australia (9208.0).

Drivers' and riders' licences

DRIVERS' AND RIDERS' LICENCES, 30 JUNE 1991
(number)

Type of licence	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Aust.*
Motor vehicle	3,639,704	2,785,753	1,831,458	978,108	817,354	247,152	92,387	170,118	10,562,034
Motor cycle	317,520	157,916	323,124	196,428	126,650	214	19,734	—	1,141,586
Combined	—	—	—	—	—	34,203	—	22,636	56,839
Total	**3,957,224**	**2,943,669**	**2,154,582**	**1,174,536**	**944,004**	**281,569**	**112,121**	**192,754**	**11,760,459**

Source: Motor Registry in each State and Territory.

Road traffic accidents

The number of persons killed in Australia as a result of road traffic accidents has fallen significantly between 1985 and 1990. This decline is reflected in all States and Territories, but less so in Tasmania and the Northern Territory.

ROAD TRAFFIC ACCIDENTS INVOLVING FATALITIES

Year	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
ACCIDENTS INVOLVING FATALITIES									
1985	954	605	452	239	219	69	59	30	2,627
1986	908	610	421	259	208	78	63	30	2,577
1987	858	626	400	230	193	67	80	33	2,487
1988	912	615	483	204	199	68	46	32	2,559
1989	783	681	376	201	214	68	56	28	2,407
1990	702	490	346	187	181	63	54	22	2,045
PERSONS KILLED									
1985	1,067	683	502	268	243	78	67	33	2,941
1986	1,029	668	481	288	228	91	71	32	2,888
1987	959	705	442	256	213	77	84	36	2,772
1988	1,037	701	539	223	230	75	51	32	2,888
1989	960	776	428	222	242	80	61	34	2,803
1990	797	548	399	226	196	71	68	24	2,329

Source: Road Traffic Accidents Involving Fatalities, Australia (9401.0).

ROAD TRAFFIC ACCIDENTS INVOLVING CASUALTIES(a) (ADMISSIONS TO HOSPITALS) NUMBER OF ACCIDENTS, PERSONS KILLED OR INJURED, 1989

				Per 100,000 of mean population			Per 10,000 motor vehicles registered(b)		
State/ Territory	Number of accidents	Persons killed	Persons injured	Number of accidents	Persons killed	Persons injured	Number of accidents	Persons killed	Persons injured
NSW	7,315	960	8,263	126.8	16.6	143.1	23.1	3.0	26.1
Vic.	7,951	776	9,356	184.0	18.0	216.5	30.7	3.0	36.2
Qld	3,455	428	3,955	122.0	15.1	139.6	20.4	2.5	23.4
SA	2,132	222	2,492	149.6	15.6	174.9	24.7	2.6	28.9
WA	2,526	242	2,996	158.4	15.2	187.9	25.6	2.5	30.4
Tas.	610	80	705	135.2	17.7	156.2	21.5	2.8	24.8
NT	400	61	495	255.6	39.0	316.3	52.2	8.0	64.5
ACT	210	34	221	75.3	12.2	79.3	14.3	2.3	15.1
Australia	**24,599**	**2,803**	**28,483**	**146.1**	**16.7**	**169.2**	**25.1**	**2.9**	**29.0**

(a) Accidents reported to the police or other relevant authority which occurred in public thoroughfares and which resulted in death within thirty days or personal injury to the extent that the injured person was admitted to hospital. (b) Number of motor vehicles (excluding tractors, plant and equipment) on register at 30 June 1988.

Source: Road Traffic Accidents Involving Casualties, Australia (9405.0).

Road freight activity

Concurrent with the 1983–84 Transport Industry Survey (TIS), the Bureau conducted a Business Vehicle Survey (BVS) to obtain a complete picture of road freight transport activity in Australia. The BVS involved the collection of road freight transport information from a sample of private enterprises whose main activity was not road freight transport but who operated at least one truck with a gross vehicle mass of 2.7 tonnes or more and used that truck to carry freight on public roads. Results from the TIS and BVS were combined to produce the following estimates of road freight activity.

As would be expected the transport and storage industry carried the greatest amount of freight during the 1983–84 financial year. However, the agriculture, forestry, fishing and hunting industry had the most enterprises engaged in road freight activities, while the construction and wholesale and retail trade industries also had a substantial number of such enterprises.

Current statistics of interstate road freight movement are collected quarterly and are the basis of the road freight component in the graph in the following section.

ROAD FREIGHT ACTIVITY OF PRIVATE ENTERPRISES, BY INDUSTRY, 1983–84

ASIC Code	Industry description	Enterprises at 30 June 1984	Trucks operated at 30 June 1984			Truck drivers at 30 June 1984			Wages and salaries paid to truck drivers(a)	Freight carried on trucks (b)
			Rigid	Articulated	Total	Working proprietors/ partners	Employees	Total		
		no.	no.	no.	no.	no.	no.	no.	$	million tonnes
A	Agriculture, forestry, fishing and hunting	85,796	105,446	8,163	113,609	11,727	3,416	15,143	35.3	58.5
B	Mining	557	2,151	424	2,575	62	1,810	1,872	37.6	17.3
C	Manufacturing	8,109	21,545	2,867	24,413	694	16,049	16,743	279.0	43.8
E	Construction	12,383	18,327	1,494	19,822	2,066	4,860	6,926	79.8	40.1
F	Wholesale and retail trade	19,333	34,222	3,544	37,766	4,070	16,885	20,955	297.9	55.8
511	Road freight transport	32,616	36,535	21,307	57,842	28,147	27,818	55,966	501.5	362.1
512—580	Other transport and storage	742	1,237	251	1,488	157	684	841	13.0	5.2
G	*Total transport and storage*	*33,358*	*37,772*	*21,558*	*59,330*	*28,305*	*28,502*	*56,807*	*514.5*	*367.3*
I	Finance, property and business services	1,718	3,725	922	4,647	97	2,612	2,710	51.0	11.4
K	Community services	1,055	2,277	42	2,319	500	1,187	1,688	20.4	6.5
L	Recreation, personal and other services	1,773	2,523	159	2,682	247	677	924	10.0	6.2
Total		**164,081**	**227,988**	**39,174**	**267,161**	**47,769**	**75,999**	**123,768**	**1,325.5**	**606.9**

(a) Excludes the drawings of working proprietors and partners. (b) Estimates of freight carried relate to freight uplifted by trucks and therefore, to the extent that transshipment occurs (i.e., the transfer of freight from one truck to another), estimates of freight carried will overstate the actual physical quantity of freight moved.

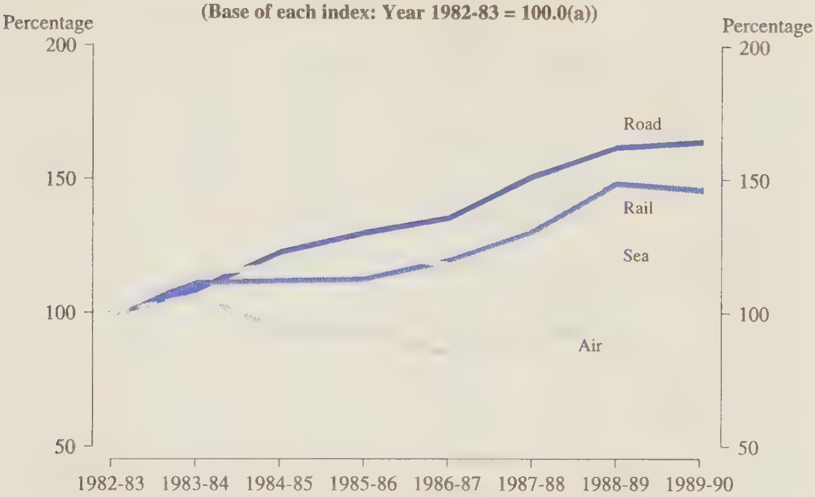
NOTE: Road freight activity data collected from road freight establishments included in the TIS has been tabulated against the industry to which the enterprise of the road freight transport establishment is classified, e.g., the figures for a road freight establishment of a manufacturing enterprise would be tabulated against ASIC Division C.

Source: Road Freight Transport Activity of Private Enterprises by Industry Division, Australia and States (9107.0).

Interstate freight movement

The following graph compares trends in freight movements by different modes of transport over time. The graph indicates relative movements from a common base year and cannot be used to compare actual levels of activity. Since 1982–83, movements of freight interstate by road and rail have shown significant increases. Movements by sea have shown a relative decline since reaching a peak in 1985–86. Transport of freight interstate by air has declined significantly. The large decline in freight moved by air in 1989–90 was mainly due to the airline pilot's dispute.

INDEXES OF INTERSTATE FREIGHT MOVEMENTS
MODE OF TRANSPORT
(Base of each index: Year 1982-83 = 100.0(a))



(a) 1982-83 was chosen as the base year as it was the first year for which comparable information was collected for each mode of transport.
Source: Interstate Freight Movement, Australia (9212.0).

Bus and tram services

Bus services are operated by government or municipal authorities and private operators. Statistics are collected for government and municipal bus services which are located in all capital cities and Newcastle, New South Wales; Rockhampton, Queensland; Launceston and Burnie, Tasmania; and for country road services operated by the Victorian Railways, the State Rail Authority of New South Wales, the Western Australian Government Railways and the Australian National Railways.

Tram services operate in Melbourne and Adelaide. Additionally, services are operated in Ballarat and Bendigo on an irregular basis, generally during holiday periods as a tourist attraction.

In 1989–90 the Melbourne tram fleet was upgraded with 40 new light rail vehicles. The light rail vehicles operate on selected lines throughout the system and on the St. Kilda and Port Melbourne lines which were converted from trains to light rail operation during 1987.

BUS AND TRAM SERVICES: GOVERNMENT AND MUNICIPAL, 1989–90

	NSW	*Vic.(a)*	*Qld*	*SA*	*WA(b)*	*Tas.*	*NT*	*ACT*	*Aust.*
Route-kilometres at 30 June									
Bus (kilometres)	1,260	n.a.	865	1,057	7,639	505.5	534	1,548	n.a.
Tram (kilometres)	. .	228	. .	11	. .	. .	. .	. .	239
Vehicle-kilometres									
Bus ('000)	68,948	67,990	30,164	40,039	50,045	9,416	2,698	19,991	289,291
Tram ('000)	. .	24,220	. .	720	. .	. .	. .	. .	24,940
Rolling stock at 30 June									
Bus (number)	1,474	1,408	642	739	930	255	46	463	5,957
Tram (number)	. .	663	. .	21	. .	. .	. .	. .	684
Passenger journeys									
Bus ('000)	193,842	92,650	43,411	47,131	55,386	12,503	2,848	24,999	472,770
Tram ('000)	. .	95,600	. .	1,993	. .	. .	. .	. .	97,593
Gross revenue(c)									
Bus and tram ($'000)	311,127	n.a.	47,849	58,061	71,944	9,486	2,581	69,497	n.a.
Working expenses(d)									
Bus and tram ($'000)	296,363	n.a.	89,380	132,923	121,267	25,747	7,595	73,005	n.a.
Net revenue									
Bus and tram ($'000)	14,764	n.a.	–41,532	–74,862	–49,323	–16,261	–5,014	–3,508	n.a.
Employees at 30 June									
Bus and tram (number)	4,916	n.a.	1,678	n.a.	2,208	541	103	1,075	n.a.

(a) Public and private transport state-wide merged into the Public Transport Corporation. (b) Excludes operations of Eastern Goldfields Transport Board. (c) Excludes government grants. (d) Includes provision of reserves for depreciation, etc. where possible.
Source: Various State and Territory bus and tram authorities.

BUS AND TRAM SERVICES: GOVERNMENT AND MUNICIPAL

	1984–85(a)	*1985–86*	*1986–87*	*1987–88(b)*	*1988–89(b)*	*1989–90(c)*
Route-kilometres at 30 June						
Bus (kilometres)	n.a.	n.a.	n.a.	n.a.	16,217	n.a.
Tram (kilometres)	340	340	343	343	351	239
Vehicle kilometres						
Bus ('000)	252,038	255,753	266,516	214,687	254,355	289,291
Tram ('000)	24,747	24,778	24,863	24,621	24,971	24,940
Rolling stock at 30 June						
Bus (number)	5,942	5,918	5,939	5,962	5,950	5,957
Tram (number)	683	663	648	641	651	684
Passenger journeys						
Bus ('000)	454,460	460,281	463,670	387,601	494,476	472,770
Tram ('000)	112,071	115,111	115,758	117,876	121,444	97,593

(a) Excludes operations of Eastern Goldfields Transport Board in Western Australia. (b) Excludes details of metropolitan bus and tram services in South Australia. (c) Victorian public and private transport state-wide merged into the Public Transport Corporation in 1989–90.
Source: Various State and Territory tram and bus authorities.

RAIL TRANSPORT

Government railways

The six government owned railway systems are operated by:

- the State Rail Authority of New South Wales;
- the State Transport Authority of Victoria (operating 'V/Line');
- the Queensland Department of Transport;
- the Western Australian Government Railways Commission (Westrail);
- the State Transport Authority of South Australia; and
- the Australian National Railways Commission.

The Australian National system includes routes in more than one State, and the Victorian system extends into New South Wales, therefore the system route-kilometres shown in the following table do not represent route-kilometres exclusively within each State and Territory.

GOVERNMENT RAILWAYS: ROUTE-KILOMETRES OPEN, BY SYSTEM
(kilometres)

30 June	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Australian National*	*Aust.*
1985	9,908	5,894	10,231	153	5,563	7,465	39,214
1986	9,909	5,518	10,224	153	5,553	7,333	38,710
1987	9,909	5,403	10,210	149	5,553	7,315	38,539
1988	9,917	5,289	10,089	127	5,553	7,187	38,162
1989	7,755	5,200	10,094	125	5,553	7,050	35,777
1990	7,747	5,196	10,107	125	5,554	6,757	35,486

Source: Various rail authorities, the Rail Industry Council and Australian Bureau of Statistics.

The following information relating to train-kilometres, passenger journeys, freight-tonnes carried, and freight tonne-kilometres refers only to operations for which revenue was received.

GOVERNMENT RAILWAYS: SUMMARY OF OPERATIONS, 1989–90

	NSW	*Vic.*	*Qld*	*SA*	*WA*	*Australian National*	*Aust.*
Train-kilometres ('000)(a)(b)							
Suburban passenger	33,847	13,307	6,919	n.a.	2,661	—	n.a.
Country passenger	5,218	7,127	2,483	—	1,211	2,396	18,435
Goods(b)	21,377	5,898	23,526	—	7,001	8,259	66,061
Total	**60,442**	**26,332**	**32,928**	**n.a.**	**10,873**	**10,655**	**n.a.**
Passenger journeys ('000)(c)							
Suburban	248,398	95,600	43,248	7,741	8,451	—	403,428
Country(d)	2,649	6,065	892	—	336	388	10,330
Total	**251,047**	**101,665**	**44,140**	**7,741**	**8,787**	**388**	**413,769**
Freight							
Tonnes carried ('000)(d)	**53,700**	**10,250**	**82,543**	**—**	**24,906**	**14,132**	**185,531**
Net tonne-kilometres (million)(e)	**14,100**	**3,672**	**22,579**	**—**	**4,872**	**8,115**	**53,338**

(a) One train (i.e., a complete unit of locomotive and vehicles, electric train set, or rail motor) travelling one kilometre for revenue purposes. (b) Includes mixed train-kilometres. (c) Based on ticket sales making allowances for periodical tickets. Tickets sold at concession rates are counted as full journeys. (d) Inter-system traffic is included in the total for each system over which it passes. (e) One tonne carried one kilometre.

Source: Various rail authorities, the Rail Industry Council and the Australian Bureau of Statistics.

GOVERNMENT RAILWAYS: TRAIN-KILOMETRES(a)
('000 kilometres)

Year	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Australian National*	*Aust.*
1984–85	66,025	30,794	34,293	n.a.	11,098	11,306	n.a.
1985–86	62,237	29,809	35,116	n.a.	10,364	10,513	n.a.
1986–87	n.a.	28,399	35,051	n.a.	9,436	10,581	n.a.
1987–88	61,954	27,435	34,099	n.a.	9,465	10,680	n.a.
1988–89	61,503	26,826	33,572	n.a.	9,472	10,654	n.a.
1989–90	60,442	26,332	32,927	n.a.	10,873	11,363	n.a.

(a) One train (i.e., a complete unit of locomotive and vehicles, electric train set, or rail motor) travelling one kilometre for revenue purpose.

Source: Various rail authorities, the Rail Industry Council and the Australian Bureau of Statistics.

GOVERNMENT RAILWAYS: FREIGHT CARRIED, NET TONNE-KILOMETRES AND FREIGHT EARNINGS

Year	*NSW*	*Vic.*	*Qld*	*WA*	*Australian National*	*Aust.*
FREIGHT CARRIED ('000 tonnes)						
1984–85	47,800	11,892	65,452	22,085	12,870	160,099
1985–86	53,800	10,516	73,599	20,877	13,049	171,841
1986–87	54,747	10,597	75,169	21,264	12,900	174,677
1987–88	54,412	10,901	74,893	21,946	11,269	173,421
1988–89	50,188	9,950	80,508	24,294	13,821	178,761
1989–90	53,700	10,250	82,543	24,906	14,132	185,531
NET TONNE-KILOMETRES (million)						
1984–85	12,393	3,543	18,438	4,328	6,270	44,972
1985–86	r13,415	3,094	20,450	4,005	7,081	48,045
1986–87	13,540	r3,588	20,871	4,062	6,873	48,934
1987–88	14,212	r3,474	20,676	4,203	7,165	49,730
1988–89	13,552	r3,365	20,884	4,881	8,082	50,764
1989–90	14,100	r3,672	22,579	4,872	8,115	53,338
FREIGHT EARNINGS ($'000)						
1984–85	641,100	182,259	828,926	209,627	213,698	2,075,610
1985–86	736,795	168,641	905,494	200,974	237,345	2,249,249
1986–87	739,250	174,700	960,950	200,731	238,097	2,313,728
1987–88	767,820	176,161	910,409	204,330	236,782	2,295,502
1988–89	667,038	166,526	1,021,272	231,749	284,905	2,137,490
1989–90	667,000	172,603	1,021,854	235,983	282,638	2,380,078

Source: Various rail authorities, the Rail Industry Council and the Australian Bureau of Statistics.

Non-government railways

The Australian non-government railways detailed in this section are those with a route distance exceeding two kilometres which operate outside industrial estates, harbour precincts, mines and quarries.

ACTIVITIES OF AUSTRALIAN NON-GOVERNMENT RAILWAYS

Year	*Iron ore railways*	*Sugar tramways*	*Coal railways(a)*	*Other non-government railways*	*Total(a)*
TONNES CARRIED (million)					
1984–85	86.9	24.0	7.9	11.1	129.9
1985–86	86.8	21.6	8.1	10.3	126.8
1986–87	91.1	23.1	7.8	11.1	133.1
1987–88	94.6	23.6	8.5	10.7	137.3
1988–89	90.5	23.6	7.4	14.1	135.6
1989–90	103.9	24.4	8.7	13.2	150.2
TONNE-KILOMETRES (million)					
1984–85	27,649	408	98	223	28,378
1985–86	28,517	368	116	201	29,202
1986–87	29,552	393	116	220	30,281
1987–88	30,218	425	126	230	30,998
1988–89	27,866	425	106	274	28,671
1989–90	31,654	438	123	263	32,478

(a) Includes transfers to and from government railways.

Source: Bureau of Transport and Communications Economics.

WATER TRANSPORT

The Australian fleet

Together, New South Wales and Queensland account for 57 per cent of ships registered in Australia. The majority of these ships are used for non-commercial purposes.

SHIPS REGISTERED(a) IN AUSTRALIA AT 30 JUNE 1990

	Nature of registration					
Location	*Demise chartered (b)*	*Other(c)*	*Government*	*Fishing*	*Pleasure*	*Total*
New South Wales	6	239	3	272	1,357	1,877
Victoria	4	104	5	177	453	743
Queensland	5	284	28	628	944	1,889
Western Australia	5	126	3	382	427	943
South Australia	—	40	3	262	210	515
Tasmania	—	56	4	214	170	444
Northern Territory	2	18	1	56	159	236
Total	**22**	**867**	**47**	**1,991**	**3,720**	**6,647**

(a) Any Australian ship longer than 24 metres must be registered. Any Australian ships travelling overseas must be registered regardless of length. A ship less than 24 metres may be registered, but this is not required by law. (b) A demise chartered ship is a foreign owned ship chartered by way of a charter party to an Australian based operator, who is an Australian national and who under the charter party has whole possession and control of the ship, including the right to appoint the master and crew of the ship. (c) Relates to vessels used for commercial purposes.

Source: Department of Transport and Communications.

Of the 75 ships which comprise the major Australian trading fleet (2,000 dead weight tonnes and over), 60 per cent operated on coastal routes.

SUMMARY OF THE AUSTRALIAN TRADING FLEET OF SHIPS 150 GROSS TONNES OR MORE, 30 JUNE 1990

Ships	*Number*	*DWT(a)*	*Gross tonnes*
Major Australian fleet(b)			
Coastal			
Australian owned and registered	36	1,198,182	801,079
Australian owned, overseas registered	1	35,244	20,570
Overseas owned, Australian registered	6	92,798	60,356
Overseas owned and registered	2	7,100	14,426
Coastal fleet	*45*	*1,333,324*	*886,431*
Overseas			
Australian owned and registered	19	1,586,580	926,977
Australian owned, overseas registered	1	41,151	29,223
Overseas owned, Australian registered	8	541,981	384,505
Overseas owned and registered	2	30,224	19,425
Overseas fleet	*30*	*2,199,936*	*1,360,134*
Major Australian fleet	*75*	*3,533,260*	*2,246,565*
Other trading ships			
Australian owned and registered	18	7,998	9,831
Australian trading fleet	**93**	**3,541,258**	**2,256,396**

(a) Dead weight tonnage. (b) 2,000 DWT and over.

Source: Department of Transport and Communications.

Coastal shipping cargo

The following table shows the gross weight of shipping cargo loaded at an Australian port for discharge at another Australian port. Both interstate and intrastate cargo movements are included. Cargo loaded or to be discharged at an overseas port is excluded.

COASTAL CARGO LOADED AND DISCHARGED AT AUSTRALIAN PORTS, 1989–90
('000 gross weight tonnes)

	Loaded			Discharged		
Australian port	*Interstate*	*Intrastate*	*Total*	*Interstate*	*Intrastate*	*Total*
New South Wales						
Sydney	174	—	174	3,017	671	3,688
Port Kembla	1,791	11	1,802	5,884	—	5,884
Botany Bay	310	198	508	3,095	—	3,095
Other	301	1,661	1,962	2,470	873	3,343
Total	*2,576*	*1,870*	*4,446*	*14,466*	*1,544*	*16,010*
Victoria						
Melbourne	1,620	—	1,620	2,454	—	2,454
Geelong	1,312	73	1,385	657	29	686
Westernport	6,148	52	6,200	752	—	752
Other	3	10	13	609	104	710
Total	*9,083*	*135*	*9,218*	*4,469*	*133*	*4,602*
Queensland						
Brisbane	879	1,249	2,128	5,151	511	5,662
Gladstone	937	562	1,499	89	6,963	7,052
Other	1,062	6,770	7,832	—	1,180	1,180
Total	*2,878*	*8,581*	*11,459*	*5,240*	*8,654*	*13,894*
South Australia						
Adelaide	555	44	599	496	954	1,450
Port Stanvac	454	5	459	830	698	1,528
Other	3,445	1,875	5,320	1,522	274	1,796
Total	*4,454*	*1,924*	*6,378*	*2,848*	*1,926*	*4,774*
Western Australia						
Fremantle	842	940	1,782	703	736	1,439
Other	6,742	1,018	7,762	79	701	780
Total	*7,584*	*1,958*	*9,544*	*782*	*1,437*	*2,219*
Tasmania						
Hobart	513	—	513	1,098	—	1,098
Burnie	672	174	846	630	—	630
Devonport	444	—	444	359	1	360
Launceston	312	11	323	1,089	48	1,093
Other	706	26	732	57	16	73
Total	*2,647*	*211*	*2,857*	*3,233*	*21*	*3,254*
Northern Territory						
Darwin	2	40	42	195	4	199
Other	416	4	420	5	38	43
Total	*418*	*44*	*462*	*200*	*42*	*242*
Total all ports	**29,640**	**14,723**	**44,364**	**31,237**	**13,757**	**44,994**

Source: Department of Transport and Communications.

OVERSEAS SHIPPING

Ship arrivals and departures

The following table shows particulars of ship arrivals and departures according to the country of registration of the ships.

OVERSEAS SHIPPING: SHIP ARRIVALS AND DEPARTURES BY COUNTRY OF SHIP REGISTRATION, 1989–90

	Ship Arrivals		*Ship Departures*	
Country of registration	*Ship calls*	*DWT(a) ('000 tonnes)*	*Ship calls*	*DWT(a) ('000 tonnes)*
Australia	810	22,597	792	26,647
China	846	11,405	813	22,025
Denmark	74	668	57	720
Germany, Federal Republic of	1,267	21,167	873	15,071
Greece	456	13,045	524	21,759
Hong Kong	374	17,776	573	26,496
India	165	3,502	174	5,652
Japan	812	19,963	1,140	94,122
Korea, Republic of	226	6,079	396	24,736
Liberia	785	24,696	803	31,276
Malaysia	475	8,352	418	8,068
Netherlands	528	10,532	271	4,888
New Zealand	420	7,956	354	6,600
Norway	190	5,365	107	3,805
Panama	1,670	29,402	1,679	44,283
Philippines	495	10,313	748	26,079
Singapore	668	13,928	635	16,383
Sweden	111	3,851	70	2,876
Taiwan	320	9,574	336	20,414
United Kingdom	1,298	39,885	1,095	34,081
United States of America	63	1,978	24	265
USSR	656	8,936	594	8,304
Other countries	2,812	71,060	2,896	82,673
Total all countries	**15,521**	**362,030**	**15,372**	**527,223**

(a) Dead weight tonnage.

Source: Shipping and Air Cargo Commodity Statistics, Australia (9206.0).

Shipping at principal ports

Ship and cargo movements to and from Australian ports during 1989–90 are shown below.

OVERSEAS SHIP AND CARGO MOVEMENTS AT AUSTRALIAN PORTS, 1989–90

Australian port	*Ship Arrivals*		*Gross weight of cargo discharged ('000 tonnes)*	*Ship Departures*		*Gross weight of cargo loaded ('000 tonnes)*
	Ship calls	*DWT(a) ('000 tonnes)*		*Ship calls*	*DWT(a) ('000 tonnes)*	
New South Wales						
Sydney	4,344	96,736	5,108	2,546	56,233	7,792
Botany Bay	460	10,554	88	748	16,577	465
Newcastle	166	5,335	1,905	691	42,445	31,702
Port Kembla	92	5,134	1,440	306	17,027	13,388
Other	109	3,834	2,212	74	1,262	159
Total	*5,171*	*121,593*	*10,703*	*4,365*	*133,544*	*53,506*
Victoria						
Melbourne	3,942	86,640	4,898	2,646	55,458	5,188
Geelong	128	4,935	1,741	127	3,101	1,624
Other	18	650	223	184	6,437	2,630
Total	*4,088*	*92,225*	*6,862*	*2,957*	*64,996*	*9,442*
Queensland						
Brisbane	2,216	50,008	2,299	1,804	39,773	7,467
Cairns	71	1,567	110	126	2,264	651
Townsville	198	3,035	1,175	299	4,845	2,068
Other	132	3,503	861	1,170	79,936	66,807
Total	*2,617*	*58,113*	*4,445*	*3,399*	*126,818*	*76,993*
South Australia						
Port Adelaide	871	21,683	637	622	15,163	1,645
Port Pirie	2	37	21	60	1,589	788
Other	52	2,956	1,220	215	7,449	3,502
Total	*925*	*24,676*	*1,878*	*897*	*24,201*	*5,935*
Western Australia						
Fremantle	1,519	33,756	1,761	1,076	27,613	18,142
Port Hedland	33	391	33	332	28,321	27,963
Other	276	10,613	5,076	1,235	87,307	77,559
Total	*1,828*	*44,760*	*6,870*	*2,643*	*143,241*	*123,664*
Tasmania						
Hobart	71	1,698	124	125	2,905	166
Launceston	81	2,417	233	146	4,697	1,807
Burnie	125	3,007	112	156	3,951	435
Other	20	741	60	76	3,313	2,266
Total	*297*	*7,863*	*529*	*503*	*14,866*	*4,674*
Northern Territory						
Darwin	177	3,021	439	181	4,621	2,420
Other	27	1,435	749	162	7,837	6,254
Total	*204*	*4,456*	*1,188*	*343*	*12,458*	*8,674*
Total Australia	**15,130**	**353,686**	**32,475**	**15,107**	**520,158**	**282,888**

(a) Dead weight tonnage.

Source: Shipping and Air Cargo Commodity Statistics, Australia (9206.0).

Overseas cargo

Details of cargo discharged in Australia from overseas, and cargo loaded in Australia for discharge overseas, classified according to the various trade areas of the world and by ship type are shown in the following tables.

INWARD OVERSEAS SEA CARGO, BY TRADE AREA OF PORT OF LOADING BY SHIP TYPE, 1989–90

('000 tonnes)

Trade area	*General cargo*	*Tanker*	*Bulk carrier*	*Other ships*	*Total ships*
Europe — Atlantic	1,144	259	587	89	2,079
Europe — Baltic — Western	198	—	16	—	214
Europe — Baltic — Eastern	23	10	—	2	35
Europe — Mediterranean — Western	431	270	182	40	923
Europe — Mediterranean — Eastern	61	58	43	—	162
East Asia	889	65	108	15	1,077
Japan and North Asia	1,256	279	1,770	54	3,359
North America — West Coast	824	222	2,386	60	3,492
North America — East Coast	696	636	1,053	52	2,437
Central America and Caribbean	10	2	211	1	224
South America — West Coast	40	—	141	2	183
South America — East Coast	203	218	789	—	1,210
Africa — West and Mediterranean	3	30	345	—	378
South and East Africa	43	5	123	5	176
Red Sea and Mediterranean Middle East	58	201	37	—	296
Middle East Gulf	101	6,964	342	—	7,407
West India	61	—	361	10	432
East India	41	—	150	10	201
South-East Asia	807	2,420	388	383	3,598
New Zealand	288	962	619	244	2,113
Papua New Guinea and Solomon Islands	37	3	4	4	48
Pacific Islands and other countries	63	1	1,018	17	1,099
Trade area not available	71	26	41	2	140
Total inward overseas cargo	**7,348**	**12,631**	**11,314**	**990**	**32,283**

Source: Shipping and Air Cargo Commodity Statistics, Australia (9206.0).

OUTWARD OVERSEAS SEA CARGO, BY TRADE AREA OF PORT OF DISCHARGE BY SHIP TYPE, 1989–90

('000 tonnes)

Trade area	*General cargo*	*Tanker*	*Bulk carrier*	*Other ships*	*Total ships*
Europe — Atlantic	1,075	605	30,890	453	33,023
Europe — Baltic — Western	9	—	847	—	856
Europe — Baltic — Eastern	109	39	363	50	561
Europe — Mediterranean — Western	495	64	5,944	115	6,618
Europe — Mediterranean — Eastern	68	—	3,927	3	3,998
East Asia	2,239	706	28,893	1,462	33,300
Japan and North Asia	7,165	4,069	134,319	5,263	150,816
North America — West Coast	1,004	1,959	4,235	42	7,240
North America — East Coast	384	341	3,964	148	4,837
Central America and Caribbean	11	78	152	—	241
South America — West Coast	119	28	391	3	541
South America — East Coast	57	—	1,370	40	1,467

... *continued*

OUTWARD OVERSEAS SEA CARGO, BY TRADE AREA OF PORT OF DISCHARGE BY SHIP TYPE, 1989–90 — *continued*
('000 tonnes)

Trade area	*General cargo*	*Tanker*	*Bulk carrier*	*Other ships*	*Total ships*
Africa — Mediterranean and West	122	42	2,805	108	3,077
South and East Africa	79	37	196	5	317
Red Sea and Mediterranean Middle East	127	—	1,573	98	1,798
Middle East Gulf	519	30	4,414	423	5,386
West India	344	103	5,338	60	5,845
East India	204	32	1,172	23	1,431
South-East Asia	1,344	2,268	4,431	642	8,685
New Zealand	417	171	1,216	254	2,058
Papua New Guinea and Solomon Islands	520	391	1,160	36	2,107
Pacific Islands and other countries	1,285	477	379	46	2,187
Trade area not available	366	256	5,652	122	6,396
Total outward overseas cargo	**18,062**	**11,696**	**243,631**	**9,396**	**282,785**

Source: Shipping and Air Cargo Commodity Statistics, Australia (9206.0).

Overseas cargo commodity details

The tables in this section provide details of inward and outward overseas sea cargo movements classified according to the Australian Transport Freight Commodity Classification (ATFCC).

Road vehicles were the single largest commodity category of inward sea cargo in 1989–90, contributing 13.1 per cent ($4,946 million) of the total value of such movements. The largest single contributor to outward cargo movements in 1989–90 was textile fibres and their wastes (largely wool), contributing 11 per cent ($4,520 million) to total outward overseas cargo movements.

INWARD AND OUTWARD OVERSEAS SEA CARGO BY COMMODITY, 1989–90(a)
($ million)

ATFCC Division	*Title*	*Inward cargo*	*Outward cargo*
00	Live animals	1	153
01	Meat and meat preparations	14	2,746
02	Dairy products and birds' eggs	101	693
03	Fish, crustaceans, molluscs and aquatic invertebrates	388	541
04	Cereals and cereal preparations(b)	90	3,282
05	Vegetables and fruit	392	462
06	Sugar, sugar preparations and honey	50	1,089
07	Coffee, tea, cocoa, spices and manufactures thereof(b)	243	26
08	Feeding stuff for animals	66	230
09	Miscellaneous edible products and preparations	290	136
11	Beverages(b)	301	160
12	Tobacco and tobacco manufactures(c)	91	14
21	Hides, skins and furskins(b)	10	250
22	Oil seeds and oleaginous fruits(c)	26	49
23	Crude rubber(b)(c)	87	7
24	Cork and wood(b)	512	18
25	Pulp and waste paper	237	24
26	Textile fibres and their wastes(b)	149	4,520
27	Fertilisers and minerals, crude(b)	203	181
28	Metalliferous ores and metal scrap(b)	138	2,800
29	Crude animal and vegetable materials, n.e.s.(b)(c)	73	116

For footnotes *see* end of table.

INWARD AND OUTWARD OVERSEAS SEA CARGO BY COMMODITY, 1989–90(a) — *continued*
($ million)

ATFCC Division	*Title*	*Inward cargo*	*Outward cargo*
32	Coal, coke and briquettes(b)	18	3,226
33	Petroleum, petroleum products and related materials(b)	2,354	1,554
34	Gases, natural and manufactured(b)(c)	16	35
41	Animals oils and fats(b)	2	18
42	Fixed vegetable oils and fats, crude, refined or fractionated(b)(c)	112	1
43	Animal and vegetable fats and oils, processed, and waxes of animal or vegetable origin(b)(c)	11	3
51	Organic chemicals(b)	802	37
52	Inorganic chemicals(b)	363	157
53	Dyeing, tanning and colouring materials(b)	209	252
54	Medicinal and pharmaceutical products	297	82
55	Essential oils, perfume materials(b)	255	69
56	Fertilisers, manufactured	248	10
57	Plastics in primary forms(b)	326	116
58	Plastics in non-primary forms(b)	393	29
59	Chemical materials and products(b)	543	103
61	Leather, leather manufactures(c)	59	132
62	Rubber manufactures(b)	566	57
63	Cork and wood manufactures(b)	216	15
64	Paper, paperboard and articles of paper	1,267	149
65	Textile yarn, fabrics, made-up articles, n.e.s.(b)	1,645	79
66	Non-metallic mineral manufactures, n.e.s.(b)	825	114
67	Iron and steel(b)	885	738
68	Non-ferrous metals(b)	276	3,441
69	Manufactures of metal, n.e.s.(b)	1,040	298
71	Power generating machinery and equipment	1,024	267
72	Machinery specialised for particular industries(b)	2,388	312
73	Metalworking machinery	342	42
74	General industrialised machinery and equipment(b)	2,094	236
75	Office machines and ADP equipment	1,083	54
76	Telecommunications and sound recording or reproducing apparatus and equipment(b)	918	36
77	Electrical machinery, apparatus and appliances(b)	1,483	168
78	Road vehicles	4,946	474
79	Other transport equipment	168	103
81	Prefabricated buildings, sanitary plumbing, heat and light fixtures and fittings(c)	130	22
82	Furniture and parts thereof	325	37
83	Travel goods, handbags and similar containers(c)	150	1
84	Articles of apparel and clothing accessories	641	24
85	Footwear	283	7
87	Professional, scientific and controlling apparatus(b)	444	47
88	Photographic apparatus, equipment and supplies(b)	323	65
89	Miscellaneous manufactured articles(b)	1,988	227
93	Special transactions and commodities not classified by kind(c)	11	242
96	Coins, not being legal tender(c)	1	—
97	Gold, non-monetary(c)	13	13
99	Other commodities and transactions(d)	2,668	10,478
Total all commodities		**37,613**	**41,067**

(a) The recorded value of inward cargo is the free on board (f.o.b.) Customs value. The value of outward cargo is the f.o.b. transactions value expressed in Australian dollars. (b) Excludes import commodities regarded as confidential. These items are included in Division 99. (c) Excludes export commodities regarded as confidential. These items are included in Division 99. (d) Includes commodities regarded as confidential.

Source: Shipping and Air Cargo Commodity Statistics, Australia (9206.0).

OVERSEAS SEA CARGO BY COMMODITY BY TYPE OF LINER SERVICE, 1989–90(a)
($ million)

	Liner Service			
ATFCC Section and title	*Conference(a)*	*Non-conference*	*Other*	*Total*
INWARD(b)				
0 Food and live animals(c)	913	331	394	1,638
1 Beverages and tobacco(c)	179	121	92	392
2 Crude materials, inedible, except fuels(c)	439	318	680	1,437
3 Mineral fuels, lubricants and related materials(c)	42	9	2,338	2,389
4 Animal and vegetables oils, fats and waxes(c)	33	10	81	124
5 Chemicals and related products(c)	1,426	666	1,345	3,437
6 Manufactured goods classified chiefly by material(c)	3,121	1,492	2,165	6,778
7 Machinery and transport equipment(c)	6,222	1,949	6,275	14,446
8 Miscellaneous manufactured articles(c)	2,112	955	1,218	4,285
9 Other commodities and transactions(d)	1,006	343	1,339	2,688
Total all commodities	**15,493**	**6,194**	**15,927**	**37,614**
OUTWARD(b)				
0 Food and live animals(c)	3,125	945	5,135	9,205
1 Beverages and tobacco(c)	94	40	42	176
2 Crude materials, inedible, except fuels(c)	2,654	1,319	3,993	7,966
3 Mineral fuels, lubricants and related materials(c)	22	18	4,776	4,816
4 Animal and vegetable oils, fats and waxes(c)	6	6	11	23
5 Chemicals and related products(c)	379	194	281	854
6 Manufactured goods, classified chiefly by material(c)	1,323	807	2,894	5,024
7 Machinery and transport equipment(c)	874	260	558	1,692
8 Miscellaneous manufactured articles(c)	209	88	133	430
9 Other commodities and transactions(d)	1,016	362	9,523	10,901
Total all commodities	**9,702**	**4,039**	**27,346**	**41,087**

(a) An association of ship owners which regulates the freight rates and terms and conditions of the carriage of goods in any particular trade. (b) The recorded value of inward cargo is the free on board (f.o.b.) Customs value. The value of outward cargo is the f.o.b. transactions value expressed in Australian dollars. (c) Excludes commodities regarded as confidential. These items are included in Section 9. (d) Includes commodities regarded as confidential.

Source: Shipping and Air Cargo Commodity Statistics, Australia (9206.0).

AIR TRANSPORT

International activity

International scheduled services

At 31 July 1991, 37 international airlines were operating regular scheduled air services to and from Australia. The carriers (and contracting states) were:

Aerolineas Argentinas	(Argentina)
Air Caledonie International	(France)
Air China International	(People's Republic of China)
Air India	(India)
Air Nauru	(Nauru)
Air New Zealand	(New Zealand)
Air Niugini	(Papua New Guinea)
Air Pacific	(Fiji)
Air Vanuatu	(Vanuatu)
Alitalia	(Italy)
All Nippon Airways	(Japan)
American Airlines	(USA)
British Airways	(UK)
Cathay Pacific Airways	(UK)
Continental Airlines	(USA)
Federal Express	(USA)
Garuda Indonesia Airways	(Indonesia)
Gulf Airlines	(Bahrain)
Japan Airlines	(Japan)
JAT Yugoslav Airlines	(Yugoslavia)
KLM Royal Dutch Airlines	(Netherlands)
Korean Airlines	(Korea)
Lauda Air	(Austria)
Lufthansa German Airlines	(Germany)
Malaysia Airlines System	(Malaysia)
Merpati Nusantara Airlines	(Indonesia)
Northwest Airlines	(USA)
Olympic Airways	(Greece)
Philippine Airlines	(Philippines)
Polynesian Airlines	(Western Samoa)
Qantas	(Australia)
Royal Brunei Airlines	(Brunei)
Singapore Airlines Ltd	(Singapore)
Solomon Airlines	(Solomon Islands)
Thai Airways International	(Thailand)
United Airlines	(USA)
Union de Transport Aeriens	(France)

Canadian Airlines International operates a code-share arrangement with Qantas: CAI operates the Canada–Honolulu sector whilst Qantas operates the Australia–Honolulu sector of the code-share flights.

Polynesian Airlines Ltd also operates services on behalf of Cook Islands International (Cook Islands) and Air Pacific operates services on behalf of Solomon Islands Airlines (Solomon Islands) and Qantas.

Qantas, Australia's international airline, operates a fleet of 27 Boeing 747 and 15 Boeing 767 jet aircraft. All shares in Qantas Airways Limited are owned by the Commonwealth Government.

International non-scheduled services

Australia's passenger and freight charter policies encourage in-bound tourism and freight carriage by non-scheduled services, particularly over routes not served by the scheduled carriers.

International traffic

Particulars of scheduled international airline traffic during 1989–90 moving into and out of an area which embraces Australia and Norfolk Island are shown below. These figures do not include traffic between Australia and Norfolk Island.

SCHEDULED INTERNATIONAL AIRLINE TRAFFIC TO AND FROM AUSTRALIA(a), 1989–90

Type of traffic	*Number of flights(b)(c)*	*Passengers*	*Freight tonnes*	*Mail tonnes*
Traffic to Australia				
Qantas Airways Limited	8,326	1,635,326	66,483	1,285
Other airlines	12,993	2,540,065	110,752	7,844
All airlines	**21,319**	**4,175,391**	**177,235**	**9,129**
Traffic from Australia				
Qantas Airways Limited	8,186	1,594,466	58,517	4,603
Other airlines	12,806	2,484,453	119,043	2,227
All airlines	**20,992**	**4,078,919**	**177,560**	**6,830**

(a) Australia and Norfolk Island. (b) Includes Qantas flights using aircraft leased from other airlines and vice versa. (c) The difference between in/out numbers arises because some outward flights are operated as non-scheduled, and thus not counted in the above table.
Source: Department of Transport and Communications.

Statistics detailing the operations of Australia's regular overseas services are shown in the following table. These operations include all stages of Qantas flights linking Australia with overseas countries.

OPERATIONS OF AUSTRALIA'S SCHEDULED OVERSEAS AIRLINE SERVICES

		1984–85	*1985–86*	*1986–87*	*1987–88*	*1988–89*	*1989–90*
Hours flown	number	89,952	100,648	117,383	126,812	140,172	148,706
Kilometres flown	'000	71,046	79,050	91,874	98,999	109,102	115,783
Passengers							
Embarkations	number	2,449,596	2,671,486	3,052,411	3,612,197	3,947,544	4,078,669
Passenger-kilometres	'000	16,858,595	18,233,088	21,258,519	24,535,745	26,516,771	27,054,999
Freight							
Tonnes uplifted	tonnes	90,357	91,961	110,389	119,202	130,635	146,937
Tonne-kilometres	'000	637,590	691,352	811,627	855,260	929,458	1,072,999
Mail							
Tonnes uplifted	tonnes	4,744	4,869	5,327	5,858	5,988	5,963
Tonne-kilometres	'000	43,231	45,370	51,819	57,946	61,049	59,398

Source: Department of Transport and Communications.

AIR CARGO BY TRADE AREA, INWARD AND OUTWARD OVERSEAS, 1989–90

	Inward cargo		*Outward cargo*	
Trade area	*Gross weight*	*Value*	*Gross weight*	*Value*
	tonnes	$'000	tonnes	$'000
Europe	46,366	3,712,969	12,501	1,475,645
East Asia	13,696	679,381	18,579	1,071,865
Japan and North Asia	13,752	1,271,144	30,766	1,380,042
North America — East Coast	26,246	2,268,743	4,811	418,067
North America — West Coast	17,170	2,223,622	9,976	671,964
Central America and Carribbean	192	25,330	67	8,297
South America — East Coast	508	23,588	32	5,695
South America — West Coast	123	4,828	72	6,340
Africa — Mediterranean and West	201	16,304	39	3,114
South and East Africa	484	10,690	412	21,926
Red Sea and Mediterranean Middle East	179	95,942	343	20,962
Middle East Gulf	62	4,650	10,052	48,433
West India	1,345	67,537	301	20,920
East India	2,135	54,998	351	13,063
South-East Asia	10,546	679,715	30,242	1,637,770
New Zealand	36,330	761,360	38,010	1,021,617
Papua New Guinea and Solomon Islands	251	54,881	3,385	119,546
Pacific Islands and other countries	2,540	77,014	10,078	140,498
Trade area not specified	21	7,608	16,660	227,961
Total	172,147	12,040,304	186,677	8,313,725

Source: Australian Customs Service.

Domestic activity

The Commonwealth Government deregulated domestic aviation in Australia and opened the nation's interstate air services to free competition from 31 October 1990.

Major airlines

At 30 June 1991, the Ansett group's fleet consisted of eight Airbus A320s, five Boeing 767-200s, six Boeing 727-200s, 12 Boeing 737-300s, five Fokker F28-1000s, one Fokker F28-4000, and seven Fokker F50s.

Australian Airline's fleet consisted of four Airbus A300s, one Boeing 727-100, 10 Boeing 727-200s, and 15 Boeing 737-300s.

East–West Airlines operated a fleet of two Fokker F28-3000s and five Fokker F28-4000s.

Compass Airlines commenced operations on 1 December 1990, and operated a fleet of four A300-600Rs and one A310-300. It ceased operations on 21 December 1991.

The Interstate Parcel Express Company Australia Pty Ltd, trading as IPEC Aviation, operates cargo airline services using two DC9 aircraft.

Commuter services

At December 1991, 43 commuter operators provided regular public transport air services to approximately 250 ports in Australia.

The aircraft types used by commuter operators are predominantly in the six to nine seat category, such as the Piper PA31 and Cessna 310, 402 and 404 series. Larger types used include Twin Otter Beach King Air, Metroliner, Embraer Bandeirante, British Aerospace Jetstream 31 and Shorts 330 and 360. During 1990–91, commuter operators carried an estimated 1.5 million passengers.

Scheduled domestic airline services

Statistics of all regular domestic airline services and the number of domestic airline passengers passing through airports are set out in the following tables.

DOMESTIC AIRLINE ACTIVITY

Domestic airlines	*1986–87*	*1987–88*	*1988–89*	*1989–90*	*1990–91*
Domestic Airlines					
Passengers (thousands)	12,506.7	13,647.9	14,012.1	9,905.2	14,098.6
Passenger kilometres performed (millions)	12,046.6	13,267.2	13,732.7	9,989.5	14,505.0
Revenue passenger load factor (per cent)	72.1	75.2	76.4	72.2	70.8
Cargo tonnes (thousands)(a)	154.3	164.1	169.1	96.0	136.3
Cargo tonnes kilometres (millions)(a)	146.6	157.1	161.4	93.7	140.8
Total tonnes kilometres (millions)	1,230.8	1,351.2	1,397.4	992.3	1446.3
Revenue weight load factor (per cent)	61.6	63.1	63.7	59.4	57.0
Hours flown (thousands)	276.7	285.3	290.3	385.9	583.4
Aircraft movements (thousands)	433.8	429.8	420.0	256.4	375.0
Commuter airlines					
Passenger (thousands)	1,169.2	1,224.7	1,324.1	1560.4	p1448.1
Cargo tonnes (thousands)(a)	3.7	3.9	n.a.	2.4	p1.6

(a) Includes freight and mail.

Source: Department of Transport and Communications — AVSTATS.

SCHEDULED MAJOR DOMESTIC AIRLINES PASSENGER UPLIFTS AND DISCHARGES AT PRINCIPAL AUSTRALIAN AIRPORTS

	1985–86	*1986–87*	*1987–88*	*1988–89*	*1989–90*	*1990–91*
Sydney	6,330,523	6,660,129	7,374,065	7,541,281	5,497,040	7,599,616
Melbourne	5,155,985	5,313,403	5,827,494	5,999,957	4,835,608	6,388,802
Brisbane	2,799,420	2,973,743	3,312,524	3,581,535	2,657,313	3,828,124
Adelaide	1,824,983	1,704,871	1,833,001	1,876,691	1,414,557	2,014,778
Perth	1,245,409	1,352,214	1,437,035	1,478,055	1,055,104	1,563,114
Canberra	990,222	1,006,652	1,087,595	1,073,519	651,897	1,044,850
Coolangatta	731,145	844,581	1,005,622	1,080,222	586,029	976,045
Cairns	495,434	627,703	777,316	823,262	545,497	825,942
Hobart	493,411	474,345	511,308	519,055	430,013	566,437
Townsville	410,260	415,870	400,439	379,362	248,715	316,828
Launceston	361,797	351,432	351,004	371,327	249,373	338,746
Darwin	334,079	341,835	366,639	388,324	302,213	402,403

Source: Department of Transport and Communications — AVSTATS.

Other aviation matters

In addition to scheduled services, there is a wide range of other activities undertaken by the aviation industry, including business flying, aerial agriculture, charter, training and private flying. Charter operations and training have, in recent years, made up about 45 per cent of general aviation hours flown. Charter operations involve the use of aircraft in operations for the carriage of passengers and cargo for hire or reward which are not scheduled or available to the public.

Aerodromes

At 30 June 1991, there were 428 Commonwealth or licenced aerodromes in Australia and its Territories. Of these, 23 were owned and operated by the Federal Airports Corporation, three of them being shared with the Department of Defence. A further 42 were owned by the Commonwealth under the control of Commonwealth departments. The remaining 363 were owned by either local authorities or private organisations.

Capital expenditure in 1990–91 on facilities at Commonwealth civil aerodromes was $1.1 million. Maintenance grants paid to licenced aerodromes under the Aerodrome Local Ownership Plan (ALOP) totalled $6.3 million. A further $8.0 million was paid for development works including funding for the withdrawal from the ALOP and transfer of responsibilities from Commonwealth to local government authorities by various aerodromes.

Air transport registrations and licences in force in Australia

At 31 December 1991, there were 9,318 aircraft registered in Australia. At the same time there were 52,689 current aeroplane pilot licence holders, including 26,690 private pilots, 6,515 commercial pilots, 1,271 senior commercial pilots, 4,246 air transport pilots and 11,162 student pilots.

In addition, there were 2,710 current helicopter pilot licence holders of which 432 were private pilots, 1,342 commercial pilots, 134 senior commercial pilots, 111 air transport pilots and 691 student pilots. There were also 11 gyroplane, 82 commercial balloon, 907 flight engineer and 18 navigator licences in force.

Accidents and casualties

AIR TRANSPORT: ACCIDENTS INVOLVING CASUALTIES(a)(b)

	1984	*1985*	*1986*	*1987*	*1988*	*1989*
Number	40	31	40	44	53	49
Persons killed	45	43	44	33	63	66
Persons seriously injured	25	27	31	42	32	36

(a) Accidents involving civil aircraft (including registered gliders and registered balloons) which resulted in death or serious injury. Excludes parachutists and casualties involving non-registered aircraft. (b) Excludes accidents outside Australia involving aircraft on the Australian register; includes all accidents to overseas registered aircraft that occur in Australia.

Source: Department of Transport and Communications.

GOVERNMENT TRANSPORT ORGANISATIONS

General

The Australian Transport Advisory Council

The Australian Transport Advisory Council comprises Commonwealth, State and Territory ministers responsible for transport, roads and marine matters. The New Zealand Minister for Transport, Civil Aviation and Meteorological Services is also represented on the Council as an observer.

The Council meets annually and its primary role is to review and coordinate various aspects of transport policy, development and administration. The Council initiates discussion and reports on issues raised by Council members, and provides advice on policies which will promote better coordination and development of transport to the benefit of Australia.

Australian Road Transport Advisory Committee

This Committee was established in April 1990 as part of the continuing push to reform the land transport sector.

Its function is to provide the Minister for Land Transport with direct industry based advice on all aspects of the road transport industry. The specialist advice from the Committee also assists the task of integrating road and rail with other forms of transport.

Bureau of Transport and Communications Economics

The Bureau is a centre for applied economic research in the Department of Transport and Communications. It undertakes studies and investigations that contribute to an improved understanding of the factors influencing the efficiency and growth of the transport and communications sector and the development of effective transport and communication policies.

Road and Rail

AUSTROADS

AUSTROADS, the national association of road and traffic authorities, provides strategic direction for the development, management and use of Australia's road system through consultation and discussion with peak bodies that have a stake in the road industry. Its functions are the coordination of research, preparation of guides and standards, and improvements in and harmonisation of practices within an agreed national policy framework.

Australian Road Research Board

The ARRB is a non-profit national organisation owned by the Federal Department of Transport and Communications, the State and Territory road/transport authorities and the Australian local Government Association. It conducts research into all aspects of roads and road transport including freight and heavy vehicles, human behaviour, intersection design and capacity, the environment, road safety, construction and maintenance of infrastructure, and the development of equipment for traffic analysis and road condition measurement. This work is undertaken for all three levels of government and for industry. The ARRB disseminates road research information through its major biennial conferences and regular symposiums, seminars and workshops and through its publications. ARRB also maintains a unique library of road literature and operates a computer based information service which abstracts and indexes road related literature and research in progress.

The ARRB acts as the Australian member of the OECD's International Road Research Documentation (IRRD) system. IRRD information from all member countries is available to Australians through ARRB's computer search services. ARRB also maintains close contacts with road research organisations in other countries.

Water

ANL Limited

ANL Limited, Australia's national shipping line, is an incorporated public company, all the shares of which are owned by the Commonwealth.

ANL is Australia's major international liner shipping company, providing services to North and South-East Asia, Europe and New Zealand. In addition, ANL is prominent in bulk and liner coastal trades. During the year ANL took delivery of three new vessels. As at 30 June 1991, ANL operated a fleet of 14 ships comprising eight ships in overseas trades and six in coastal trades. Seven overseas vessels are liner ships, the remaining vessel is a specialised car carrier. On the coast, ANL operates three bulk carriers and three ships that serve Bass Strait.

The Line has also moved into shipping related activities, particularly container management, freight forwarding, ship agency, customs agency and ship management services in an effort to broaden its revenue base and provide a more integrated transport service.

ANL is majority shareholder in National Terminals (Australian) Limited with terminals in Sydney, Melbourne, Fremantle and Tasmanian ports.

Air

Civil Aviation Authority

The CAA is an independent government business enterprise established under the *Civil Aviation Act 1988* and is responsible for the safety regulation of civil aviation in Australia. It also provides air route and airway facilities and associated services to the aviation industry including air traffic control, flight service, rescue and fire fighting, search and rescue and aeronautical information.

Federal Airports Corporation

The Federal Airports Corporation owns, manages and develops Australia's major airports and oversees the commercial activities in the airports including arrangements with airlines and other operators for the use of airports and for leasing of property and the letting of business concessions. The Corporation is a statutory transport business undertaking of the Commonwealth and is required to be financially self supporting. It has been established with a capital base and debt/equity ratio determined by the Commonwealth Government.

International organisations

Australia is one of the 162 members (at 30 June 1991) of the International Civil Aviation Organisation (ICAO). Australia has been a member of the governing Council since ICAO was established in 1947. Australia is also represented on the 15 member Air Navigation Commission which is responsible for drawing up international standards and procedures for the safety and efficiency of air navigation. In addition, Australia participates in the Commonwealth Air Transport Council, the South Pacific Regional Civil Aviation Council, the Airport Operators Council International and the International Civil Airports Association.

International agreements

Australia had air service agreements with 28 countries at 30 June 1991. These agreements have full treaty status. Australia also has 10 air service arrangements, with less than treaty status and two of these, with Argentina and Switzerland, will be upgraded to treaty status when draft agreements are ratified. Under these agreements and arrangements, Qantas, Australia's designated airline, and the foreign carriers of Australia's bilateral partners are entitled to operate services to and over their respective territories. Australia also has an agreement with the Commonwealth of Independent States (formerly the USSR) relating principally to over-flight rights and charter services.

COMMUNICATIONS

Radio and television broadcasting

Radio and television broadcasting falls within the jurisdiction of the Commonwealth Minister for Transport and Communications. Commonwealth bodies which are involved include the Australian Telecommunications Corporation (Telecom), the Australian Broadcasting Corporation (ABC), the Special Broadcasting Service (SBS), the Australian Broadcasting Tribunal (ABT), the Department of Transport and Communications, the Overseas Telecommunications Corporation (OTC), AUSTEL and AUSSAT Pty Ltd.

Basically, the Australian broadcasting system comprises the following types of services:

- national radio and television services broadcasting programs produced by the Australian Broadcasting Corporation and the Special Broadcasting Service;
- commercial radio and television services operated by companies under licence; and
- public radio services operated by incorporated associations under licence on a non-profit basis.

The Australian Broadcasting Corporation

The Australian Broadcasting Corporation (ABC) is an independent statutory corporation funded primarily by appropriation from the Commonwealth Parliament.

The *Australian Broadcasting Act 1983* requires the ABC to:

- provide within Australia innovative and comprehensive radio and television services of a high standard;
- provide programs that contribute to a sense of national identity, inform and entertain, and reflect the cultural diversity of the Australian community;
- provide radio and television programs of an educational nature;
- promote Australia's musical, dramatic and other performing arts; and
- transmit to other countries radio and television programs of news, current affairs, entertainment and cultural enrichment.

The ABC provides:

- five main radio services across Australia on 410 transmitters:
- a national television service carried on 511 transmitters with television production and transmission centres in all State capitals, Darwin and Canberra; and
- ABC concerts (the ABC is also responsible for six Symphony Orchestras).

Television and radio programs produced by the ABC are broadcast through transmitters operated by Telecom Australia on behalf of the ABC and the Department of Transport and Communications.

International broadcasting service

The international shortwave service known as Radio Australia provides an emphasis on news and current affairs, information programs and sports coverage serving the needs and interests of the Asia/Pacific region.

The broadcasts — in English, Indonesian, Standard Chinese, Cantonese, Tok Pisin, French, Thai, Japanese and Vietnamese — are directed to the Pacific, South-East/South Asia and North Asia. The English Service is also heard in the Middle East, United Kingdom, Europe and North and South America. Overall, the services reach an estimated 50 million regular listeners.

The Special Broadcasting Service

The Special Broadcasting Service (SBS) was established by the Commonwealth Government on 1 January 1978 to provide multilingual radio services and, was authorised by regulations from August 1978, to provide multilingual television services.

Commercial radio and television services

At 30 June 1991, there were 149 commercial radio services (including three supplementary licences) and 43 commercial television services in operation in Australia.

At 30 June 1991, there were three remote commercial television services licenced, transmitting their programs via satellite to remote localities in the Western Zone (Western Australia), Central Zone (Northern Territory, South Australia, Western New South Wales and North-Western Victoria) and North-East Zone (Queensland and North-Western New South Wales). There was also one remote radio service providing a monophonic service via satellite to remote localities in the Western Zone.

Public broadcasting services

At 30 June 1991, 96 public radio services were broadcasting programs ranging from fine music to ethnic languages and programs produced by and directed towards specific communities. Some public radio services are associated with tertiary educational institutions. There are no public television services operating permanently in Australia.

Broadcasting stations

BROADCASTING STATIONS, 30 JUNE 1991

Type of station	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Aust.*
National ABC									
Medium frequency (AM)	25	9	22	11	25	7	6	3	108
High frequency (HF)	—	—	2	—	3	—	9	—	14
Very high frequency (FM)	38	11	98	28	77	7	27	2	288
National SBS									
Medium frequency (AM)	3	1	—	—	—	—	—	—	4
Very high frequency (FM)	—	—	—	—	—	—	—	—	—
International									
Short wave (Radio Australia)	—	6	2	—	3	—	3	—	14
Commercial									
Medium frequency (AM)	47	18	34	8	21	7	3	2	140
Very high frequency (FM)	9	7	6	4	31	3	1	2	63
Public									
Medium frequency (AM)	2	2	2	2	1	1	—	2	12
Very high frequency (FM)	34	24	10	9	5	6	17	1	106

Source: Department of Transport and Communications.

TELEVISION TRANSMITTER STATIONS, 30 JUNE 1991

Type of station and location	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Aust.*
National	95	52	132	44	114	27	41	6	511
Commercial	136	50	163	43	112	22	30	7	563

Source: Department of Transport and Communications.

The Australian Broadcasting Tribunal

The Australian Broadcasting Tribunal is an independent statutory authority established to regulate aspects of commercial and public radio and commercial television in Australia. The Tribunal is empowered to grant, renew, suspend or revoke licences, to determine program and advertising standards applicable to licenced stations, to authorise changes to the ownership and control of licences, and to collect and make available information about broadcasting in Australia. In particular, the Tribunal is required to conduct public inquiries into the granting of licences following the invitation of applications by the Minister. The Tribunal may also conduct inquiries into the renewal of licences, the setting of standards of broadcasting practices, alleged breaches of licence conditions and other matters.

Radiocommunication stations

At 30 June 1991, there were 1,400,000 radiocommunication stations authorised for operation in Australia and its Territories. Of these, 826,575 were associated with land mobile services, 80,589 were fixed services, 75,875 were for marine services, 394,114 were citizen band (CB) stations and amateur stations.

Telecommunications services within Australia

Telecom Australia

The Australian Telecommunications Corporation operates under the trading name Telecom Australia. It is to merge with OTC Limited in 1992 and there will then be a second carrier in competition with the new organisation which will be named the Australian and Overseas Telecommunications Corporation. The main function of the present corporation is to supply telecommunications services within Australia. A subsidiary function is to carry on, outside Australia, any business or activity relating to telecommunications.

AUSTRALIAN TELECOMMUNICATIONS CORPORATION
SUMMARY OF SELECTED STATISTICS

		1987–88	*1988–89*	*1989–90*
FINANCIAL				
Revenue	$ million	7,199.5	7,976.8	8,878.9
Expenses	$ million	6,423.3	7,003.7	7,588.4
Operating profit	$ million	776.6	973.1	1,288.2
Rate of return	per cent	12.0	13.8	12.3
Addition to fixed assets	$ million	2,236.1	2,580.5	2,963.9
Net value of fixed assets	$ million	12,073.1	13,045.4	16,845.8
TRAFFIC (million)				
Telephone calls				
Local		8,074.7	8,126.5	8,796.8
Trunk		1,488.5	1,652.8	1,794.8
To overseas		65.9	85.1	104.9
Cellular mobile telephone calls		27.9	74.0	156.0
Total		**9,657.0**	**9,938.4**	**10,852.5**
Calls to recorded information services		137.2	124.0	124.7
NETWORK AND OPERATIONS				
Telephone				
Demand for new services		650,809	706,120	665,525
Connection of new services		643,834	682,907	706,010
Services in operation		7,091,549	7,419,982	7,786,889
Data services				
Modems in operation		103,962	97,890	92,310
Digital data service — network terminating units		52,489	68,117	84,189
AUSTPAC service — number of outstations		6,015	9,235	9,664
STAFF				
Average full-time operative staff		84,141	83,293	84,899

Source: Telecom.

Overseas Telecommunications Corporation (OTC)

OTC Limited provides Australia's telecommunications links with the world, and is a founding member of both the International Telecommunications Satellite Organisation (INTELSTAT), and the International Maritime Satellite Organisation (INMARSAT). From the beginning of 1990, it has been providing the opportunity for 15 small nations in the South Pacific to gain access to modern satellite-based communications systems, from the OTC Sydney Satellite Earth Station.

Australian national satellite system

AUSSAT Pty Ltd was established by the Commonwealth Government in November 1981 as a commercial company to own, operate and manage Australia's National Satellite System. AUSSAT provides a telecommunications system for Australia by using space satellites and makes the facilities available for use in telecommunications systems in neighbouring regions.

AUSSAT's first generation satellite system comprises three Hughes Aircraft Company

HS 376 spin stabilised satellites. Geostationary orbit locations are: AUSSAT 1 — 160°E longitude; AUSSAT 2 — 156°E longitude; and AUSSAT 3 at 164°E longitude, some 36,000 kilometres above the earth, directly over the equator.

Each satellite has a minimum design life of seven years. The antenna array enables each satellite to provide national beam coverage of the entire Australian continent and its offshore regions and four spot beams covering:

- North-East (Queensland);
- Central Australia (Northern Territory and South Australia);
- West (Western Australia); and
- South-East (New South Wales, Victoria and Tasmania).

The satellites also have the capability of providing a switched beam to cover Papua New Guinea, and AUSSAT 3 has a switched beam capability covering the south-west Pacific region and New Zealand.

AUSSAT also operates two telemetry, tracking command and monitoring ground stations. The main centre is located in the Sydney suburb of Belrose, and it is from this station that final positioning and maintenance of the satellites in the geostationary orbit is monitored and controlled. A backup to the Belrose Satellite Control Centre is located in the Perth suburb of Lockridge.

Postal communications

Australian Postal Corporation

The Australian Postal Corporation's principal function is to supply postal services within Australia and between Australia and overseas. Its subsidiary function is to carry on any business or activity relating to postal services either domestically or overseas.

The Australian Postal Corporation is the authority for the issue of postage stamps throughout the Commonwealth of Australia and its external territories. The following tables provide details of the Corporation's finances, services and operation.

AUSTRALIAN POSTAL CORPORATION: REVENUE AND EXPENDITURE
($'000)

	1984–85	*1985–86*	*1986–87*	*1987–88*	*1988–89*	*1989–90*
Revenue						
Mail services	1,080,539	1,186,422	1,370,930	1,501,487	1,644,869	1,779,573
Commission on agency services	94,547	87,291	83,328	89,803	88,031	79,780
Postal money order service	11,940	11,846	12,384	13,242	16,792	19,029
Other revenue	24,269	39,832	38,440	51,847	61,516	60,617
Total	**1,211,295**	**1,325,391**	**1,505,082**	**1,656,379**	**1,811,208**	**1,980,473**
Expenditure						
Labour and related expenditure	911,776	973,294	1,049,186	1,131,190	1,251,284	1,235,530
Carriage of mail by contractors	103,551	109,418	121,183	132,832	151,131	158,311
Depreciation and interest	17,159	22,294	27,744	38,454	39,748	44,947
Other expenditure	154,301	189,530	252,079	298,955	323,186	395,878
Total	**1,186,787**	**1,294,536**	**1,450,192**	**1,601,431**	**1,765,349**	**1,923,390**

Source: Australian Postal Corporation.

AUSTRALIAN POSTAL CORPORATION: PROFIT AND LOSS STATEMENT FOR THE YEAR ENDED 30 JUNE 1990 ($'000)

Revenue	
Mail services	1,779,573
Commission on agency services	79,780
Postal money order services	19,029
Other revenue	60,617
Total	*1,980,473*
Expenditure	
Labour and related expenditure	1,324,254
Carriage of mail by contractors	158,311
Accommodation	103,601
Stores and supplies	112,055
Depreciation	44,947
Interest	6,246
Other operating expenditure	173,976
Total	*1,923,390*
Operating Profit	**57,083**
Appropriations	
Accumulated profit brought forward	116,584
Operating profit for the year	45,859
Adjustments to provision	15,754
Accumulated profit carried forward	178,197

Source: Australian Postal Corporation.

AUSTRALIAN POSTAL CORPORATION: PERSONS ENGAGED IN PROVIDING POSTAL SERVICES AT 30 JUNE 1990 AND 1991

	1991							
	HQ	*NSW (incl. ACT)*	*Vic. and Tas.*	*Qld*	*SA (incl. NT)*	*WA*	*Aust.*	*Aust. 1990*
Official staff(a)								
Full-time permanent	618	12,519	9,693	4,225	2,509	2,417	31,981	31,981
Full-time temporary	19	1,536	796	415	176	184	3,126	3,126
Part-time	—	1,786	1,153	654	435	521	4,549	4,549
Other staff(b)	—	2,568	2,137	1,850	721	782	8,058	8,058
Total	**637**	**18,409**	**13,779**	**7,144**	**3,841**	**3,904**	**47,714**	**47,714**

(a) 'Official staff' are those whose employment is governed by the *Australian Postal Corporation Act 1989*. (b) Includes persons who are not employed under the Australian Postal Corporation Act, but who are engaged on the basis of business transacted. Also included are persons or organisations who hold road mail service contracts with the Australian Postal Corporation.

Source: Australian Postal Corporation.

AUSTRALIAN POSTAL CORPORATION: MAIL DELIVERY NETWORK AND POST OFFICES AT 30 JUNE 1989 AND 1990

(number)

	1990						
Number	*NSW (incl. ACT)*	*Vic. & Tas.*	*Qld*	*WA*	*SA (incl. NT)*	*Aust.*	*Aust. 1989*
Households receiving mail	2,235,857	1,755,224	1,083,537	607,654	595,415	6,277,687	6,068,018
Businesses receiving mail	234,469	158,334	112,010	58,645	59,999	673,020	639,485
Post offices							
1990	496	333	218	143	153	1,372	1,383
1989	490	330	218	141	153	1,356	1,372
Agencies							
1990	925	840	521	390	247	3,060	3,104
1989	904	836	516	380	244	3,045	3,060
Total post offices and agencies	**1,394**	**1,166**	**734**	**521**	**397**	**4,401**	**4,432**

Source: Australian Postal Corporation.

AUSTRALIAN POSTAL CORPORATION: TOTAL POSTAL ARTICLES HANDLED

('000)

Year ended 30 June	*Posted for delivery within Australia*	*Posted for places abroad*	*Received from abroad*	*Total postal articles handled*
1985	2,877,476	107,783	163,074	3,148,333
1986	2,970,353	115,688	166,444	3,252,485
1987	3,143,251	125,995	169,306	3,438,552
1988	3,342,321	142,280	177,417	3,662,018
1989	3,564,366	157,605	193,988	3,915,959
1990	3,663,664	171,281	213,716	4,048,661

Source: Australian Postal Corporation.

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Interstate Freight Movement, Australia (9212.0)

Interstate Road Freight Movement, Australia (9214.0)

Motor Vehicle Census: Australia (9309.0)

Motor Vehicle Registrations, Australia (9303.0) — monthly

Motor Vehicle Registrations, Australia (9304.0) — annual

Rail Transport, Australia (9213.0)

Road Freight Transport Activity of Private Enterprises by Industry Division, Australia and States (9107.0)

Road Traffic Accidents Involving Casualties, Australia (9405.0)

Road Traffic Accidents Involving Fatalities, Australia (9401.0)

Shipping and Air Cargo Commodity Statistics, Australia (9206.0)

Survey of Motor Vehicle Use, Australia (9208.0)

Transport Establishments: Details of Operations by Industry Class, Australia (9104.0)

Transport Establishments: Selected Items of Data Classified by Industry and Size Group, Australia (9105.0)

Transport Establishments: Summary of Operations by Industry Class, Australia and States (9103.0)

Other Publications

Information additional to that contained in ABS publications is available in the annual reports and other statements of the Department of Transport and Communications, the various harbour boards and trusts, the several government railway authorities, the Federal Airports Corporation, the Australian Postal Corporation, the Australian Telecommunications Corporation, and the Australian Broadcasting Corporation.

FOR MORE INFORMATION

The ABS has a far wider range of information on Australia than that contained in the *Year Book*. Information is available in the form of regular publications, electronic data services, special tables and from investigations of published and unpublished data.

For further information contact ABS Information Services at one of the addresses listed on the page facing the Introduction to the *Year Book*.

Chapter Twenty-four

Science and Technology

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BIBLIOGRAPHY

Science and technology directly influence the strength and competitiveness of industry by providing a basis for technological change and thereby encouraging economic growth and development. They can be seen as making major contributions to the achievement of many of Australia's social, economic and industrial goals.

OFFICIAL ORGANISATIONS AND ADMINISTRATION

The Department of Industry, Technology and Commerce (DITAC)

There are many organisations in Australia concerned in some way with the development of science and technology in Australia.

The Commonwealth Government's conviction of the importance of science and technology is reflected in the functions of the Department of Industry, Technology and Commerce. Apart from having general responsibility for science and technology, the Department is concerned with the development and maintenance of Australia's scientific and technological capability.

The main scientific and technological bodies and activities of the portfolio include the Commonwealth Scientific and Industrial Research Organisation, the Australian Nuclear Science and Technology Organisation, and the 150 per cent tax concession for research and development (R&D), which are described below. Details of others, such as R&D grants and assistance schemes; the Patent, Trade Marks and Design Office; the Snowy Mountains Engineering Corporation; the Commission for the Future; The Australian Space Office; and the National Standards Commission, were contained in *Year Book Australia 1991*.

A number of other Commonwealth government organisations either support or carry out scientific and technological activities. State Governments are also involved in science and technology via State government departments, science and technology councils and other organisations. Non-government organisations participating in scientific and technological activities include higher education institutions, professional and learned bodies, private organisations and industry groups. *See Year Book Australia 1991.*

The Commonwealth Scientific and Industrial Research Organisation (CSIRO)

CSIRO was established as an independent statutory authority by the *Science and Industry Research Act 1949*. The Act has been amended on a number of occasions since then, including in 1978, following the government-instigated 'Birch Committee of Inquiry' and in November 1986, following the 'Review of Public Investment in Research and Development in Australia', specifically including CSIRO, carried out by the Australian Science and Technology Council (ASTEC).

The 1986 amendments to the Act confirm that CSIRO's primary role is to continue as an applications-oriented research organisation in support of major industry sectors and selected areas of community interest, but with a stronger commitment to the effective transfer of its results to users. The most recent amendments have also included changes to the top management structure and the organisation's advisory mechanisms.

Briefly, CSIRO's primary statutory functions are to:

- carry out scientific research for the benefit of Australian industry, the community, national objectives, national or international responsibilities, or for any other purpose determined by the Minister; and
- encourage or facilitate the application or utilisation of the results of such research.

Other functions include dissemination and publication of scientific information, international liaison in scientific matters, and provision of services and facilities.

The research work of the organisation is carried out in Institutes, each headed by a Director and each specifically established to undertake work in support of industry or community interest sectors of the Australian economy. Institutes are composed of Divisions, which are individually responsible for broad programs of research in support of the objectives of the Institute.

Institute of Information, Science and Engineering: Divisions of Information Technology; Radiophysics; Mathematics and Statistics; CSIRO Office of Space Science and Applications; Australia Telescope.

Institute of Industrial Technologies: Divisions of Manufacturing Technology; Materials Science and Technology; Applied Physics; Chemicals and Polymers; Biomolecular Engineering.

Institute of Minerals, Energy and Construction: Divisions of Building, Construction and Energy (now incorporates National Building Technology Centre); Exploration Geoscience; Mineral and Process Engineering; Mineral Products; Coal and Energy Technology; Geomechanics.

Institute of Animal Production and Processing: Divisions of Animal Health; Animal Production; Wool Technology; Tropical Animal Production; Food Processing; Human Nutrition.

Institute of Plant Production and Processing: Divisions of Plant Industry; Tropical Crops and Pastures; Horticulture; Entomology; Soils; Forestry and Forest Products.

Institute of Natural Resources and Environment: Divisions of Water Resources; Fisheries; Oceanography; Atmospheric Research; Wildlife and Ecology; Centre for Environmental Mechanics.

CSIRO has a total staff of more than 7,000 in more than 100 locations throughout Australia. About one-third of the staff are professional scientists, with the others providing technical, administrative or other support. CSIRO's budget for 1989–90 was $571 million.

The Australian Nuclear Science and Technology Organisation (ANSTO)

ANSTO was established as a statutory authority under the *Australian Nuclear Science and Technology Organisation Act Number 3 of 1987*, and replaced the Australian Atomic Energy Commission. Its mission is to benefit the Australian community by the development and peaceful application of nuclear science and technology in industry, medicine, agriculture, science and other fields.

Tax Concession for Research and Development

The 150 per cent tax concession for Research and Development (R&D) which commenced from July 1985 is the major program in the Government's package of measures to encourage R&D in Australia. The concession is broad based, being available to the majority of companies undertaking R&D in Australia. The concession is market driven, being structured in a manner which is neither industry nor product oriented, allowing individual companies to determine both the specific area of innovation and direction of their R&D activities.

The Prime Minister's March 1991 Industry Statement announced the Government's decision to retain an R&D tax concession as a permanent feature of the taxation system. The program will continue at 150 per cent until 30 June 1993 after which it will remain at 125 per cent.

At present the concession allows companies incorporated in Australia, public trading trusts and partnerships of eligible companies to deduct up to 150 per cent of eligible expenditure incurred on R&D activities when lodging their corporate tax return. This effectively reduces the after tax cost of R&D to about 41.5 cents in the dollar at the 39 per cent corporate tax rate.

Expenditure eligible under the concession at 150 per cent include: salaries, wages and other overhead costs which are directly related to the company's Australian R&D activities; contract expenditure; and capital expenditure on R&D plant and equipment (over three years). Expenditure on acquiring, or acquiring the right to use, technology for the purposes of the company's own R&D activities is 100 per cent deductible.

The concession is only available for R&D projects carried out in Australia or an external Territory and must meet exploitation and adequate Australian content requirements.

To attract the full 150 per cent deduction, annual eligible R&D expenditure must exceed $50,000, with a sliding scale operating from 100 to 150 per cent where annual eligible R&D expenditures range from $20,000 to $50,000. Where R&D is contracted to an approved Registered Research Agency this expenditure threshold is waived and the R&D expenditure can be deducted at 150 per cent.

RESEARCH AND DEVELOPMENT — EXPENDITURE AND HUMAN RESOURCES

The estimated gross expenditure on R&D (GERD) carried out in Australia in 1988–89, was $4,187 million. This represents a 14 per cent increase compared with 1987–88. At average 1984–85 prices, GERD increased by nine per cent over the same period. The total estimate of human resources devoted to R&D during 1988–89 in Australia was 64,951 person years; this represented a five per cent increase compared with 1987–88.

These and the statistics which follow are based on the definitions described by the OECD for national R&D surveys. The OECD defines R&D as comprising ‘creative work undertaken on a systematic basis in order to increase the stock of knowledge, including knowledge of man, culture and society, and the use of this stock of knowledge to devise new applications’.

R&D statistics for 1985–86 to 1989–90 are presented below for the general government, higher education and private non-profit sectors. For the business enterprise sector, data for 1989–90 is also included where available.

HUMAN RESOURCE EFFORT DEVOTED TO RESEARCH AND EXPERIMENTAL DEVELOPMENT
(person years)

Sector	*1985–86*	*1986–87*	*1987–88*	*1988–89r*	*1989–90*
Business enterprises					
Private sector	13,431	16,070	r16,655	18,488	17,975
Public sector	1,353	1,395	1,327	1,352	1,491
General government					
Commonwealth	11,182	11,518	11,491	11,498	n.a.
State	6,337	6,627	7,125	7,643	n.a.
Higher education					
Universities	20,143	21,690	22,435	22,939	
CAEs	(a)	1,529	1,888	1,963	n.a.
Private non-profit	812	997	1,023	1,068	n.a.
Total	**53,258**	**59,826**	**61,944**	**64,951**	**n.a.**

(a) Estimates for Colleges of Advanced Education were not collected this year.

Source: Research and Experimental Development: All Sector Summary, Australia (8112.0).

GROSS EXPENDITURE ON RESEARCH AND EXPERIMENTAL DEVELOPMENT CARRIED OUT IN AUSTRALIA AT CURRENT AND AVERAGE 1984–85 PRICES
($ million)

Sector	*1985–86*	*1986–87*	*1987–88*	*1988–89r*	*1989–90*
AT CURRENT PRICES					
Business enterprises					
Private sector	852.2	1,147.0	1,317.5	1,604.7	1,729.2
Public sector	95.7	r123.6	r111.6	137.0	176.8
General government					
Commonwealth	729.0	785.9	797.0	862.0	n.a.
State	315.8	357.9	394.6	453.2	n.a.
Higher education					
Universities	707.6	844.9	929.8	1,018.4	
CAEs	(a)	36.7	53.8	54.5	n.a.
Private non-profit	47.1	52.8	54.2	56.7	n.a.
Total	**2,747.4**	**3,348.9**	**3,658.5**	**4,186.5**	**n.a.**
AT AVERAGE 1984–85 PRICES					
Business enterprises					
Private sector	r793.7	983.8	r1,051.5	1,215.6	1,204.6
Public sector	89.2	r106.7	r92.1	108.8	131.0
General government					
Commonwealth	688.3	693.2	654.2	672.8	n.a.
State	297.1	312.6	323.6	354.2	n.a.
Higher education					
Universities	700.7	750.8	788.7	816.5	
CAEs	(a)	32.2	40.3	41.0	n.a.
Private non-profit	44.2	48.7	47.4	47.3	n.a.
Total	**2,613.4**	**2,928.0**	**2,997.8**	**3,256.2**	**n.a.**

(a) Estimates for Colleges of Advanced Education were not collected this year.

Source: Research and Experimental Development: All Sector Summary, Australia (8112.0).

GROSS EXPENDITURE ON RESEARCH AND EXPERIMENTAL DEVELOPMENT CARRIED OUT IN AUSTRALIA BY SECTOR BY SOURCE OF FUNDS
($'000)

	Source of funds						
Sector	*Common-wealth government*	*State government*	*Business enterprises*	*Higher education*	*Private non-profit and other Australian*	*Overseas*	*Total*
1986–87							
Business enterprises							
Private sector	53,370	3,924	1,077,040	269	459	12,903	1,146,970
Public sector	8,664		r113,986			—	r123,646
General government							
Commonwealth	754,378	3,833	22,881	108	347	4,374	785,920
State	30,487	294,573	17,968	413	13,641	802	357,884
Higher education							
Universities	788,970	9,010	9,659	8,943	22,121	6,245	844,949
CAEs	6,305	2,975	8,806	17,300	1,167	180	36,732
Private non-profit	20,042	6,712	2,472	411	18,703	4,468	52,809
Total	**1,662,216**	**321,027**	**1,252,811**	**27,444**	**56,439**	**28,973**	**3,348,909**
1988–89r							
Business enterprises							
Private sector	57,943	2,709	1,498,040	168	5,712	40,676	1,604,698
Public sector	2,900	1,642	131,926			—	137,017
General government							
Commonwealth	809,305	3,862	40,617	—	2,651	5,563	861,998
State	42,859	368,340	22,092	228	18,513	1,162	453,193
Higher education							
Universities	940,066	11,856	18,676	—	40,961	6,824	1,018,383
CAEs	11,228	4,779	8,906	28,057	1,180	369	54,518
Private non-profit	19,741	5,660	4,834	632	23,628	2,193	56,688
Total	**1,884,042**	**398,848**	**1,725,091**	**29,084**	**92,645**	**56,787**	**4,186,495**
1989–90(a)							
Business enterprises							
Private sector	42,622	3,785	n.p.	636	n.p.	33,361	1,729,170
Public sector	4,514	5,739	n.p.	—	n.p.	—	176,785
Total	**47,136**	**9,524**	**1,804,771**	**636**	**10,527**	**33,361**	**1,905,955**

(a) Data for only the Business enterprise sector was collected in 1989–90.

Source: Research and Experimental Development: All Sector Summary, Australia (8112.0).

Business sector

The estimate of expenditure on R&D carried out in Australia by private and public business enterprises during 1986–87, 1988–89 and 1989–90 are shown in the next table at current prices. At average 1984–85 prices, R&D expenditure is estimated to have increased by 22.5 per cent and one per cent over 1986–87 and 1988–89 respectively.

RESEARCH AND EXPERIMENTAL DEVELOPMENT CARRIED OUT BY BUSINESS ENTERPRISES(a) RESOURCES DEVOTED TO R&D BY INDUSTRY OF ENTERPRISE

Industry of enterprise		*Number of enterprises*		*Expenditure on R&D ($m)*			*Person years of effort on R&D*		
ASIC Code	*Description*	*1986–87*	*1988–89r*	*1986–87*	*1988–89r*	*1989–90(b)*	*1986–87*	*1988–89r*	*1989–90(b)*
11–15	Mining (excluding services to mining)	39	47	55.6	68.7	(c)	524	589	(c)
	Manufacturing—								
21	Food, beverages and tobacco	106	103	56.7	83.3	(d)	815	836	(d)
23–24	Textiles, clothing and footwear	35	45	12.9	9.1	(d)	119	118	(d)
25	Wood, wood products and furniture	47	46	6.4	10.3	(d)	118	119	(d)
26	Paper, paper products, printing and publishing	32	30	10.0	24.3	(d)	158	237	(d)
27	Chemical, petroleum and coal products	270	256	120.1	146.0	148.4	1,857	1,647	1,625
28	Non-metallic mineral products	39	45	15.3	22.3	(d)	178	206	(d)
29	Basic metal products	47	53	63.7	92.1	132.9	865	962	985
31	Fabricated metal products	129	133	23.0	26.1	(d)	392	383	(d)
32	Transport equipment	98	125	127.9	160.2	153.3	1,562	1,764	1,424
334	Photographic, professional and scientific equipment	67	69	25.7	37.5	(d)	433	512	(d)
335	Appliances and electrical equipment	590	575	174.5	233.2	273.5	2,835	3,418	3,649
336	Industrial machinery and equipment	254	254	43.3	55.6	(d)	720	790	(d)
34	Miscellaneous manufacturing	102	114	21.6	26.8	(d)	329	394	(d)
C	**Total manufacturing**	**1,816**	**1,844**	**701.1**	**926.6**	**994.1**	**10,380**	**11,386**	**10,976**
	Other industries—								
F	Wholesale and retail trade	293	291	96.8	151.5	(c)	1,230	1,616	(c)
63	Property and business services	588	507	178.4	209.5	(c)	2,376	2,585	(c)
8461	Research and scientific institutions	80	97	45.3	128.1	(c)	640	1,109	(c)
(e)	Other n.e.c.	213	217	r193.4	257.3	(c)	2,315	2,554	(c)
16, D–L	**Total other industries**	**1,174**	**1,112**	**r514.0**	**746.4**	**911.9**	**6,561**	**7,864**	**8,490**
	Total all industries	**3,029**	**3,003**	**r1,270.6**	**1,741.7**	**1,906.0**	**17,465**	**19,840**	**19,467**
	Private sector contribution	2,967	2,949	1,147.0	1,604.7	1,729.2	16,070	18,488	17,975
	Public sector contribution	62	54	r123.6	137.0	176.8	1,395	1,352	1,491

(a) Excludes enterprises in ASIC Division 'A'. (b) Inter year estimates are not available for all industries listed. Details have been published where available. (c) Included in Total Other Industries. (d) Included in Total Manufacturing. (e) ASIC codes 16,D,E,G,H,61–62,J,8141–8306,8462–8495,L.

Source: Research and Experimental Development, Business Enterprises, Australia (8104.0).

General government sector

The estimate of R&D expenditure of the Commonwealth Government and State Governments, for the years 1986–87 and 1988–89 are shown in the next table at current prices. At average 1984–85 prices, R&D expenditure is estimated to have increased by 2.1 per cent over 1986–87.

RESEARCH AND EXPERIMENTAL DEVELOPMENT CARRIED OUT BY GENERAL GOVERNMENT ORGANISATIONS RESOURCES DEVOTED TO R&D BY SOCIO-ECONOMIC OBJECTIVE

	Expenditure on R&D ($m)		*Person years of effort on R&D*	
Socio-economic objective	*1986–87r*	*1988–89r*	*1986–87r*	*1988–89r*
National security (Defence)	175.1	202.5	3,146	3,078
Economic development				
Agriculture	387.7	439.8	6,505	6,831
Forestry and fisheries	63.3	74.4	1,055	1,151
Mining (prospecting)				
Energy sources	14.3	14.2	179	139
Other	26.5	43.1	364	515
Mining (extraction)				
Energy sources	2.8	4.0	42	55
Other	7.6	8.3	127	111
Manufacturing	119.1	129.1	1,697	1,770
Construction	15.0	20.0	273	283
Energy	47.0	43.8	546	478
Transport	17.4	22.0	292	289
Communications	1.3	1.8	10	21
Economic services n.e.c.	18.2	23.0	412	418
Total economic development	**720.2**	**823.5**	**11,502**	**12,064**
Community welfare				
Urban and regional planning	1.7	1.0	40	20
Environment	60.9	86.2	702	965
Health	61.3	65.6	1,196	1,433
Education	6.7	17.3	151	201
Welfare	7.2	8.3	119	121
Community services n.e.c.	20.8	31.6	261	394
Total community welfare	**158.6**	**210.0**	**2,469**	**3,133**
Advancement of knowledge				
Earth, ocean and atmosphere n.e.c.	83.0	67.0	877	688
General advancement of knowledge	7.2	12.1	153	180
Total advancement of knowledge	**90.2**	**79.0**	**1,030**	**868**
Total	**1,143.8**	**1,315.2**	**18,145**	**19,141**

Source: Research and Experimental Development, General Government and Private Non-Profit Organisations, Australia (8109.0).

Higher education sector

The estimate of expenditure on R&D carried out in Australia by higher education organisations during 1986 and 1988 are shown in the next table at current prices. At average 1984–85 prices, R&D expenditure is estimated to have increased by 22 per cent over 1986.

RESEARCH AND EXPERIMENTAL DEVELOPMENT CARRIED OUT BY HIGHER EDUCATION ORGANISATIONS
R&D EXPENDITURE BY SOCIO-ECONOMIC OBJECTIVE

	Expenditure on R&D ($m)					
	1986r			*1988*		
Socio-economic objective	*CAEs*	*Universities*	*Total*	*CAEs*	*Universities*	*Total*
National security (Defence)	0.2	1.7	1.9	0.2	2.2	2.4
Economic development						
Agriculture	2.1	72.0	74.1	4.0	81.5	85.5
Forestry and fisheries	0.4	8.6	9.0	0.8	11.2	12.0
Mining (prospecting)						
Energy sources	0.3	3.7	4.0	0.4	3.3	3.7
Other	0.2	7.0	7.2	0.7	5.5	6.2
Mining (extraction)						
Energy sources	0.1	1.2	1.3	0.3	2.5	2.8
Other	1.2	5.6	6.8	1.5	6.8	8.3
Manufacturing	4.8	24.1	28.9	6.8	39.4	46.2
Construction	0.8	8.2	9.0	1.4	11.2	12.6
Energy	1.9	25.4	27.3	2.5	27.4	29.9
Transport	0.5	4.2	4.7	0.4	4.5	4.9
Communications	1.0	7.2	8.2	1.4	8.9	10.3
Economic services n.e.c.	2.8	33.3	36.1	3.3	46.4	49.7
Total economic development	**16.1**	**200.6**	**216.7**	**23.5**	**248.6**	**272.0**
Community welfare						
Urban and regional planning	0.4	5.6	6.0	0.8	6.2	7.0
Environment	1.4	15.7	17.1	2.6	25.8	28.4
Health	6.8	180.8	187.6	9.9	216.3	226.2
Education	3.8	32.9	36.7	6.8	35.1	41.9
Welfare	0.9	9.1	10.0	0.7	7.9	8.6
Community services n.e.c.	1.7	17.0	18.7	2.1	19.8	21.9
Total community welfare	**15.0**	**261.1**	**276.1**	**22.9**	**311.0**	**334.0**
Advancement of knowledge						
Earth, ocean and atmosphere n.e.c.	0.6	49.9	50.5	1.2	49.5	50.7
General advancement of knowledge	4.9	331.7	336.6	6.7	407.0	413.7
Total advancement of knowledge	**5.5**	**381.6**	**387.0**	**7.9**	**456.5**	**464.4**
Total	**36.7**	**844.9**	**881.6**	**54.5**	**1,018.4**	**1,072.9**

Source: Research and Experimental Development: Higher Education Organisations, Australia (8111.0).

RESEARCH AND EXPERIMENTAL DEVELOPMENT CARRIED OUT BY HIGHER EDUCATION ORGANISATIONS
HUMAN RESOURCES DEVOTED TO R&D BY SOCIO-ECONOMIC OBJECTIVE

Person years of effort on R&D

	1986r			*1988*		
Socio-economic objective	*CAEs*	*Universities*	*Total*	*CAEs*	*Universities*	*Total*
National security (Defence)	13	39	52	6	36	42
Economic development						
Agriculture	63	1,949	2,012	129	2,045	2,174
Forestry and fisheries	19	237	256	35	224	260
Mining (prospecting)						
Energy sources	17	95	112	20	85	105
Other	12	194	206	32	131	163
Mining (extraction)						
Energy sources	2	37	40	12	63	75
Other	38	156	194	51	163	213
Manufacturing	215	682	896	284	949	1,233
Construction	25	201	226	36	233	269
Energy	76	643	719	93	602	695
Transport	28	109	137	19	97	116
Communications	58	200	258	49	196	245
Economic services n.e.c.	105	700	805	136	853	989
Total economic development	**659**	**5,202**	**5,861**	**896**	**5,640**	**6,536**
Community welfare						
Urban and regional planning	16	134	150	25	119	144
Environment	66	427	493	92	554	646
Health	283	4,526	4,809	327	4,894	5,221
Education	140	843	984	239	824	1,062
Welfare	41	229	269	29	171	199
Community services n.e.c.	76	379	454	62	401	463
Total community welfare	**621**	**6,538**	**7,159**	**773**	**6,962**	**7,735**
Advancement of knowledge						
Earth, ocean and atmosphere n.e.c.	26	1,181	1,207	40	1,036	1,076
General advancement of knowledge	210	8,730	8,939	249	9,265	9,514
Total advancement of knowledge	**236**	**9,911**	**10,147**	**289**	**10,301**	**10,590**
Total	**1,529**	**21,690**	**23,218**	**1,963**	**22,939**	**24,902**

Source: Research and Experimental Development: Higher Education Organisations, Australia (8111.0).

Private non-profit sector

The estimate of expenditure on R&D carried out by private non-profit organisations during 1986–87 and 1988–89 are shown in the next table at current prices. At average 1984–85 prices, R&D expenditure is estimated to have dropped by 2.9 per cent over 1986–87.

RESEARCH AND EXPERIMENTAL DEVELOPMENT CARRIED OUT BY PRIVATE NON-PROFIT ORGANISATIONS RESOURCES DEVOTED TO R&D BY SOCIO-ECONOMIC OBJECTIVE

	Expenditure ($'000)		*Person years of effort on R&D*	
Socio-economic objective	*1986–87r*	*1988–89r*	*1986–87r*	*1988–89r*
National security (Defence)	—	—	—	—
Economic development				
Agriculture	69	179	3	4
Forestry and fisheries	35	—	1	—
Mining (prospecting)				
Energy sources	—	—	—	—
Other	—	—	—	—
Mining (extraction)				
Energy sources	—	—	—	—
Other	—	—	—	—
Manufacturing	n.p.	5,053	n.p.	69
Construction	—	—	—	—
Energy	n.p.	288	n.p.	4
Transport	52	—	1	—
Communications	—	16	—	1
Economic services n.e.c.	1,683	2,554	31	30
Total economic development	**5,911**	**8,090**	**90**	**106**
Community welfare				
Urban and regional planning	38	38	—	1
Environment	564	411	16	8
Health				
Pre and para clinical health	n.p.	7,179	n.p.	132
Clinical health	36,348	36,078	691	723
Public health	275	1,401	10	37
Total health	*n.p.*	*n.p.*	*n.p.*	*891*
Education	1,200	1,302	20	22
Welfare	882	748	23	16
Community services n.e.c.	n.p.	787	n.p.	11
Total community welfare	**46,351**	**47,944**	**896**	**949**
Advancement of knowledge				
Earth, ocean and atmosphere n.e.c.	48	48	2	2
General advancement of knowledge	499	606	9	11
Total advancement of knowledge	**547**	**655**	**11**	**13**
Total	**52,809**	**56,688**	**997**	**1,068**

Source: Research and Experimental Development, General Government and Private Non-Profit Organisations, Australia (8109.0).

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Additional information

Additional information on topics presented in this chapter may be found in the annual reports of the organisations mentioned, particularly the Department of Industry, Technology and Commerce, the CSIRO, and in the annual *Science and Technology Statements*. Statistical information on R&D for the years 1968–69, 1973–74 and 1976–77 may be found in the reports on Project SCORE published by the (then) Department of Science. Statistical information on R&D relating to 1978–79, 1981–82, and 1984–85 to 1989–90 may be obtained from the Australian Bureau of Statistics (ABS). Further statistical information on higher education is obtainable from the Department of Employment, Education and Training.

The Department of Industry, Technology and Commerce's *Australian Science and Technology Indicators Report*, published in 1988, uses Science and Technology (S&T) indicators to give a good overview and analysis of science and technology information in Australia. It presents information on R&D effort and expenditure; science and technology workforce; S&T information resources; scientific equipment and facilities; literature-based S&T measures; patent activity; technology training; financial support for technological development; industry operations and trade by level of technology; and transfer of technical knowledge.

FOR MORE INFORMATION

The ABS has a far wider range of information on Australia than that contained in the *Year Book.* Information is available in the form of regular publications, electronic data services, special tables and from investigations of published and unpublished data.

For further information contact ABS Information Services at one of the addresses listed on the page facing the Introduction to the *Year Book.*

Chapter Twenty-five

Financial Institutions

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This chapter provides information about Australia's financial institutions and their role of financial intermediation. Financial institutions intermediate between savers and borrowers. They marshall the funds of economic agents (e.g., businesses, households, governments, non-profit institutions) that generate surplus funds from their operations (savers) and make those funds available to economic agents that require funds to finance their operations or investment (borrowers). The savers and borrowers for whom the financial institutions intermediate may be located in Australia, or overseas.

Until recent years, Australian financial institutions tended to specialise in intermediation for particular types of customers or types of finance (e.g., housing finance for home buyers; seasonal finance for farmers). However, with deregulation of the financial markets in the 1980s, most institutions have increased their range of products and services so that savers and borrowers now have available to them a wide variety of investment and borrowing choices in both domestic and international markets.

MONEY

Currency

Australia has a decimal system of currency, the unit being the dollar, which is divided into 100 cents. Australian notes are issued in the denominations of $5, $10, $20, $50 and $100 and coins in the denominations of 1c, 2c, 5c, 10c, 20c, 50c, $1 and $2.

VALUE OF AUSTRALIAN NOTES ON ISSUE
($ million)

	Last Wednesday in June				
	1987	*1988*	*1989*	*1990*	*1991*
$1	40	38	36	43	43
$2	173	154	54	75	73
$5	213	228	241	233	249
$10	525	576	643	691	679
$20	2,274	2,516	2,554	2,289	2,048
$50	3,539	3,911	4,037	4,425	5,345
$100	2,978	3,941	4,781	5,225	6,356
Total	**9,742**	**11,364**	**12,346**	**12,981**	**14,793**
Increase per cent	9.3	16.6	8.6	5.1	14.0

Source: Reserve Bank of Australia.

AUSTRALIAN DECIMAL COIN: NET ISSUES BY RESERVE BANK
($ million)

	Last Wednesday in June					
	1986	*1987*	*1988*	*1989*	*1990*	*1991*
1c	1.3	1.3	1.4	1.2	1.4	–1.5
2c	1.3	1.9	2.1	1.3	1.8	–4.0
5c	3.8	4.6	5.5	2.7	3.9	0.4
10c	3.4	4.8	5.7	2.9	3.6	–0.5
20c	3.0	2.7	5.4	–6.4	–0.9	–3.2
50c	–0.5	3.2	5.8	–3.4	0.9	–1.8
$1	25.5	16.3	21.7	–26.3	–7.9	–1.8
$2	—	—	62.7	239.6	31.9	16.1
Total	**37.8**	**34.7**	**110.4**	**211.5**	**34.6**	**3.7**

Source: Reserve Bank of Australia.

Volume of money

Statistics of the volume of money in the following table include notes and coins in the hands of the public and deposits with banks (including the Reserve Bank). Volume of money is a measure of specified financial assets held by the non-bank public.

The financial assets included in the volume of money in the table represent only part (albeit a major part) of the public's total holdings of liquid financial assets. An expanded view of the volume of money would include the public's holdings of such other claims as finance company debentures; deposits and shares of building societies; loans to authorised dealers in the short-term money market; and government securities.

VOLUME OF MONEY
($ million)

Average of weekly figures for June	*Notes and coins in the hands of public*	*Current deposits with banks(a)*	*Other deposits with banks(a)*			*Total volume of money (b)*
			Certificates of deposit	*Term*	*Other*	
1986	8,717	16,509	6,002	38,489	32,337	101,866
1987	9,598	19,418	5,704	43,017	37,398	114,896
1988	10,978	23,777	6,368	44,260	45,197	130,163
1989	12,193	28,120	21,052	63,507	41,635	166,506
1990	12,840	29,058	22,864	75,628	50,020	190,410
1991	14,620	30,223	29,578	75,955	52,604	202,981

(a) Excludes deposits of the Commonwealth and State Governments and inter-bank deposits. (b) It is not possible to exclude government deposits with those banks formerly classified as savings banks from the components prior to January 1989. As a result, these components do not sum to the total before this date.

Source: Reserve Bank of Australia.

FINANCIAL LEGISLATION

Commonwealth legislation

The major acts of Federal Parliament relating to the management and operations of financial institutions in Australia are as follows:

- *The Banking Act 1959* which applies to all banks operating in Australia, except the so-called State banks owned by State Governments and trading mainly in their own State. Originally the objectives of the Act were to provide a uniform legal framework for regulating the banking system; to safeguard depositors of the banks from loss; to provide for the coordination of banking policy under the direction of the Reserve Bank; to control the volume of credit in circulation and bank interest rates; and to provide the machinery for the control of foreign exchange. In recent years Australian Governments have sought to decrease the degree of regulation imposed on the financial sector and the banks in particular, such that controls on most bank interest rates and foreign exchange have been relaxed. Significant amendments were made to the Act in January 1990 which formalised supervision requirements and restructured the banking industry (e.g., abolition of the distinction between trading and savings banks).
- *The Reserve Bank Act 1959* which establishes the Reserve Bank of Australia, provides for the management of the Bank, the administration of the *Banking Act 1959* and the management of Australian note issue. Prior to 1959 central banking business was the responsibility of the Commonwealth Bank.
- *The Commonwealth Banks Act 1959* which establishes and provides for the management of the Commonwealth Banking Corporation, Commonwealth Bank of Australia, Commonwealth Savings Bank of Australia and the Commonwealth Development Bank of Australia.
- *The Financial Corporations Act 1974* which applies to non-bank financial institutions (NBFIs) such as finance companies, building societies, and money market dealers. The object of the Act is to provide a means for the Federal Government to examine and regulate the activities of non-bank financial institutions with regard to economic stability, the ensuring of adequate levels of finance for housing and the financial and economic welfare of the

people of Australia. In the current deregulated environment, the main purpose of the Act has been the additional information and statistics on NBFI operations being made available to the relevant regulatory body, the Reserve Bank of Australia.

- *The Insurance and Superannuation Commissioner Act 1987* which created the statutory office of Insurance and Superannuation Commissioner. The Act provides for the Commissioner to assume overall responsibility (subject to the Treasurer's direction) for the supervision of the insurance industry and for the occupational superannuation standards.
- *The Life Insurance Act 1945* (amended in 1987) which regulates life insurance business in Australia. The objects of this Act are: to replace all State legislation on the subject of life insurance except that relating to life insurance operations of State government insurance offices within the State concerned and therefore to provide uniform legislation for the whole of Australia; to provide for the Insurance and Superannuation Commissioner to exercise active supervision of the activities of life insurance companies, with a view to securing the greatest possible protection for policy holders; and to set up adequate machinery for dealing with any company that fails to maintain a required minimum standard of solvency.
- *The Insurance Act 1973* which regulates the general (non-life) insurance business. This Act provides for the Insurance and Superannuation Commissioner to exercise active supervision of the financial activities of companies conducting general (non-life) insurance business with a view to securing the greatest possible protection for policy holders; and to set up adequate machinery for dealing with any company that fails to maintain a required minimum standard of solvency.
- *The Occupational Superannuation Standards Act 1987* which provides for the standards for occupational superannuation funds and approved deposit funds.
- *The Insurance (Agents and Brokers) Act 1984* which provides for the Insurance and Superannuation Commissioner to regulate the activities of insurance agents and brokers with a view to strengthening the financial stability of the overall industry.

State legislation

In each State, legislation exists to regulate the activities and monitor the solvency position of particular types of financial institutions, such as permanent building societies, credit cooperatives and cooperative housing societies, which operate on a cooperative basis and lend predominantly to members or consumers. Permanent building societies and credit cooperatives must provide statistical information on their operations to State regulatory bodies as well as to the Reserve Bank as part of their obligations under the *Financial Corporations Act 1974.*

In some States there is also legislation for the incorporation of State government bodies which operate as banks or insurance offices. Again these institutions provide statistical information to both State and Federal regulatory bodies.

BANKS

Reserve Bank of Australia

The Reserve Bank of Australia preserved and continued in existence the original corporate body known as the Commonwealth Bank of Australia under the new name Reserve Bank of Australia.

The general functions of the Reserve Bank are set out in section 10 of the *Reserve Bank Act 1959*, which states:

> 'It is the duty of the Board, within the limits of its powers, to ensure that the monetary and banking policy of the Bank is directed to the greatest advantage of the people of Australia and that the powers of the Bank under this Act, the *Banking Act 1959*, and regulations under that Act are exercised in such a manner as, in the opinion of the Board, will best contribute to:
>
> (a) the stability of the currency of Australia;
>
> (b) the maintenance of full employment in Australia; and
>
> (c) the economic prosperity and welfare of the people of Australia.'

RESERVE BANK OF AUSTRALIA: LIABILITIES AND ASSETS
($ million)

LIABILITIES

30 June	Capital and reserve funds	Special reserve— IMF special drawing right	Deposits by banks(a): Australian notes on issue	Deposits by banks(a): Non-callable deposits/ Statutory Reserve Deposit accounts	Other	All other liabilities	Total
1986	182	349	8,890	3,301	76	10,206	23,004
1987	200	366	9,801	3,455	18	12,702	26,541
1988	247	324	11,135	3,557	283	10,307	25,853
1989	248	295	12,159	3,178	159	8,597	24,636
1990	248	265	12,837	2,733	921	8,719	25,723
1991	248	238	14,621	2,541	24	10,457	28,129

ASSETS

30 June	Gold and foreign exchange (b)	Common-wealth government securities	Loans, advances and bills discounted	All other assets	Total
1986	12,016	9,732	215	1,041	23,004
1987	17,120	8,295	110	1,016	26,541
1988	19,644	4,975	130	1,104	25,853
1989	19,950	3,797	86	803	24,636
1990	22,086	2,874	85	678	25,723
1991	24,308	2,960	89	772	28,129

(a) The Statutory Reserve Deposit ratio was set at zero on 27 September 1988 and the balances transferred to non-callable deposit accounts. Further details are provided in the Reserve Bank press release of 23 September 1988 which was reprinted in the October 1988 Reserve Bank Bulletin. (b) Includes IMF Special Drawing Rights.

Source: Reserve Bank of Australia.

Commercial banks

Commercial banking in Australia is conducted by 46 banks, including the development banks. Of these, three large private banks and the Commonwealth Bank of Australia are responsible for over half the total assets of all banks. These banks provide widespread banking services and an extensive retail branch network throughout Australia. The remaining banks, all privately-owned except for four State banks (as at 30 June 1991), provide similar banking services through limited branch networks.

All banks operate under the *Banking Act 1959* as amended, except for State banks which operate under respective State legislation. One of the results of the significant amendments made to the Act in January 1990 was the abolition of the distinction between trading and savings banks.

At 30 June 1991, the banks operated 6,917 branches and 7,300 agencies. Of the total branches, 3,960 were located in metropolitan areas. Banking facilities were also available at 3,126 metropolitan agencies throughout Australia.

BANKS: LIABILITIES AND ASSETS
($ million)

			June
	1989	1990	1991
Liabilities			
Deposits repayable in Australia			
Residents(a)	155,020	177,961	189,481
Non-residents	4,287	5,468	5,560
Total	*159,307*	*183,430*	*195,041*
Other borrowings			
Banks(b)	10,976	6,860	11,857
Other(b)	—	10,400	13,948
Bill acceptance liabilities	53,797	56,184	55,071
All other $A liabilities	10,867	10,320	12,939
Total resident $A liabilities	230,516	252,939	272,426
Total non-resident $A liabilities	4,431	14,255	16,430
Total $A liabilities	*234,947*	*267,194*	*288,856*
Foreign currency liabilities	23,734	28,581	33,661
Total liabilities(c)	**258,681**	**295,776**	**322,517**
Assets			
Coin, Australian notes and cash with Reserve Bank	1,280	2,114	1,244
Non-callable deposits with Reserve Bank	3,179	2,733	2,541
Public sector securities	26,573	22,098	23,437
Loans, advances and bills held	167,322	201,496	225,272
Bills receivable	52,620	54,293	53,573
Premises	5,045	5,824	6,657
All other $A assets	14,704	17,640	23,650
Total resident $A assets	270,135	304,697	335,170
Total non-resident $A assets	587	1,501	1,203
Total $A assets	*270,722*	*306,199*	*336,373*
Foreign currency assets(d)	12,950	19,648	17,888
Total assets	**283,672**	**325,847**	**354,261**

(a) All certificates of deposits issued by banks have been shown as resident deposits. (b) Includes issues of term subordinated debt, loan capital and similar instruments. Not separately available before January 1990. (c) Excludes shareholders' funds. (d) Prior to January 1990, excludes non-resident foreign currency assets.

Source: Reserve Bank of Australia Bulletin.

Interest rates

Interest rates are the return offered on money deposited/invested or the charge on money borrowed. The following are a selection of rates offered to individuals and businesses by banks for deposits and overdrafts.

The table below shows the substantial decrease in the level of interest rates between 30 June 1990 and 1991.

INTEREST RATES AT 30 JUNE 1990 AND 1991

		Per cent per annum
	1990	1991
Fixed deposits (less than $50,000)		
30 days	13.25	9.25
3 months	14.00	10.00
6 months	14.00	9.75
12 months	14.25	10.00
Overdrafts		
Less than $100,000	18.75/20.75	14.25/16.50
$100,000 and over	18.25/18.75	14.00/14.25

Source: Reserve Bank of Australia Bulletin.

NON-BANK FINANCIAL INSTITUTIONS

In addition to banks, there are a number of other categories of financial institutions which play an important part in financial activities in Australia. The following table displays summary data on the assets and liabilities of each type of financial corporation covered by the *Financial Corporations Act 1974*, plus cooperative housing societies which are covered by State legislation.

FINANCIAL CORPORATIONS: ASSETS AND LIABILITIES(a), 1989–90
($ million)

ASSETS

Category	*Amount owing on loans*	*Cash placements and deposits*	*Bills, bonds and other securities*	*Other assets*	*Total assets*
Permanent building societies	16,374.4	1,443.5	3,663.5	946.8	22,428.4
Cooperative housing societies	2,507.4	70.3	—	7.5	2,585.2
Credit cooperatives	6,977.9	1,009.7	344.5	376.6	8,708.7
Authorised money market dealers	1.0	243.1	5,763.6	17.7	6,025.4
Money market corporations	26,044.7	9,128.8	10,987.3	5,074.0	51,234.8
Finance companies	26,120.0	1,586.1	952.2	10,487.5	39,145.8
General financiers	4,707.4	711.5	1,300.3	3,875.3	10,594.5
Other financial corporations	1,490.3	322.6	2,435.3	145.8	4,394.0
Total	**84,223.1**	**14,515.6**	**25,446.7**	**20,931.2**	**145,116.8**

LIABILITIES

Category	*Share capital and reserves*	*Borrowings*	*Other liabilities*	*Total liabilities*
Permanent building societies	6,864.4	15,145.6	418.4	22,428.4
Cooperative housing societies	39.8	2,528.9	16.6	2,585.3
Credit cooperatives	605.3	8,013.2	90.2	8,708.7
Authorised money market dealers	95.7	5,878.2	51.4	6,025.4
Money market corporations	2,282.4	45,767.9	3,184.4	51,234.8
Finance companies	3,282.2	34,032.9	1,830.6	39,145.8
General financiers	621.7	9,284.7	688.1	10,594.5
Other financial corporations	292.4	4,066.4	35.3	4,394.0
Total	**14,083.9**	**124,717.8**	**6,315.0**	**145,116.8**

(a) At the balance date of corporations within the year shown.

Source: See the tables which follow for each category.

The definitions, assets, liabilities, income and expenditure of each category are summarised below.

Permanent building societies

A permanent building society is defined as an organisation that:

- is registered under relevant State or Territory legislation;
- has not by its rules any fixed date or certain event or result when it is to terminate;
- is authorised to accept money on deposit; and
- operates on a cooperative basis by borrowing predominantly from its members and providing finance to its members principally in the form of housing loans.

The statistics below provide information in total on the 54 permanent building societies balancing in the 1989–90 financial year.

Information relating to the housing finance operations of permanent building societies is provided in the chapter, Construction and Housing.

PERMANENT BUILDING SOCIETIES: ASSETS, LIABILITIES, INCOME AND EXPENDITURE(a)
($ million)

	1987–88	*1988–89*	*1989–90*
Liabilities			
Share Capital	8,209.1	6,357.7	6,299.1
Reserves	727.3	852.1	565.3
Deposits	11,188.6	14,556.6	13,264.6
Loans	1,242.5	1,825.7	1,881.0
Other liabilities	312.2	406.2	418.4
Total liabilities	**21,679.7**	**23,998.3**	**22,428.4**
Assets			
Amount owing on loans	14,717.2	17,925.1	16,374.4
Cash on hand	61.4	78.4	86.3
Deposits with:			
Banks	790.6	1,138.5	989.4
Other	458.1	230.5	367.8
Bills, bonds, etc.	4,921.9	3,766.1	3,663.5
Physical assets	578.4	670.1	519.3
Other assets	152.1	189.7	427.5
Total assets	**21,679.7**	**23,998.3**	**22,428.4**
Expenditure			
Interest on:			
Shares	871.9	618.2	682.4
Deposits	1,125.2	1,570.4	1,896.9
Interest on loans	109.2	160.0	296.9
Wages and salaries	190.9	221.9	225.6
Administrative expenses	272.2	233.9	406.9
Other expenditure	212.1	201.4	375.6
Total expenditure	**2,781.4**	**3,005.8**	**3,884.3**
Income			
Interest from:			
Loans	2,085.2	2,343.5	2,686.2
Deposits	138.9	130.1	221.4
Income from bills, bonds, etc.	591.0	556.4	518.6
Other income	220.5	218.2	237.9
Total income	**3,035.7**	**3,248.2**	**3,664.0**

(a) At the balance dates of societies within the financial year shown.

Source: Permanent Building Societies: Assets, Liabilities, Income and Expenditure, Australia (5632.0).

Cooperative housing societies

A cooperative housing society is defined as an organisation that:

- is registered under the relevant State or Territory legislation;
- is not authorised to accept money on deposit;
- is only allowed to raise money on loans;
- only provides finance to its members in the form of housing loans; and
- does not cause or permit applicants for loans to ballot for precedence or in any way make the granting of a loan dependent on any chance or lot.

The statistics below summarise information on the 1,804 cooperative housing societies balancing within the 1989–90 financial year.

COOPERATIVE HOUSING SOCIETIES: ASSETS, LIABILITIES, INCOME AND EXPENDITURE(a)
($ million)

	1987–88	*1988–89*	*1989–90*
Liabilities			
Share capital and reserves	29.5	33.0	39.8
Borrowings	2,084.7	2,239.4	2,528.9
Other liabilities	15.3	11.2	16.6
Total liabilities	**2,129.4**	**2,283.5**	**2,585.3**
Assets			
Loan outstanding	2,067.5	2,205.6	2,507.4
Placements and deposits	57.6	72.5	70.3
Physical assets	0.5	0.7	0.8
Other assets	3.8	4.7	6.7
Total assets	**2,129.4**	**2,283.5**	**2,585.2**
Expenditure			
Interest paid	223.9	247.5	307.1
Administrative expenses	15.9	19.0	25.7
Other expenditure	5.5	7.4	9.8
Total expenditure	**245.4**	**273.8**	**342.6**
Income			
Interest on loans	229.8	253.4	316.2
Other income	21.5	26.6	36.0
Total income	**251.3**	**280.0**	**352.2**

(a) At the balance dates of cooperative housing societies within the financial year shown.
Source: Co-operative Housing Societies: Assets, Liabilities, Income and Expenditure, Australia (5633.0).

Credit cooperatives

A credit cooperative (or credit union) is defined as an organisation that:

- is registered under relevant State or Territory legislation; and
- operates on a cooperative basis by predominantly borrowing from and providing finance to its own members.

Credit cooperative annual financial account statistics were first collected on a national basis from all registered credit cooperatives for the year 1974–75 when there were 738 credit cooperatives with a total of 909,547 members. By comparison the number of credit cooperatives operating in 1989–90 was 386 with 2,609,122 members.

CREDIT COOPERATIVES: ASSETS, LIABILITIES, INCOME AND EXPENDITURE(a)
($ million)

	1987–88	*1988–89*	*1989–90*
Liabilities			
Share capital	26.2	27.4	28.5
Reserves	404.1	507.2	576.8
Deposits	6,708.9	6,871.1	7,884.3
Loans	93.1	174.4	128.9
Other liabilities	68.0	80.4	90.2
Total liabilities	**7,300.3**	**7,660.6**	**8,708.7**
Assets			
Amount owing on loans(b)	5,581.2	6,273.8	6,977.9
Cash on hand	42.2	48.9	47.7
Deposits with:			
Banks	145.3	111.8	145.9
Other	793.5	578.5	816.1
Bills, bonds, etc.	410.0	297.9	344.5
Physical assets	232.2	250.9	268.5
Other assets	95.2	98.8	108.1
Total assets	**7,299.6**	**7,660.6**	**8,708.7**
Expenditure			
Interest on:			
Deposits	707.0	698.1	909.8
Loans	5.5	13.1	15.6
Wages and salaries	135.2	164.6	178.9
Administrative expenses	136.2	182.0	159.0
Other expenditure	144.6	114.4	174.4
Total expenditure	**1,128.4**	**1,172.1**	**1,437.7**
Income			
Interest from:			
Loans	994.0	1,041.1	1,260.7
Deposits	103.0	109.1	131.4
Income from bills, bonds, etc.	45.5	49.5	42.8
Other income	63.9	78.5	67.4
Total income	**1,206.5**	**1,278.1**	**1,502.3**

(a) At the balance of credit cooperatives within the financial year shown. (b) Net of unearned interest and allowance for doubtful debts.

Source: Credit Co–operatives: Assets, Liabilities, Income and Expenditure, Australia (5618.0).

Authorised money market dealers

For some years prior to 1959, leading stockbrokers were actively engaged in operations which formed the basis of a short-term money market in Australia. The stockbrokers' operations involved the acceptance of short-term funds which were secured against government securities. These operations were severely limited by the lack of suitable short-term securities and by liquidity constraints. In February 1959, the Central Bank established the Official Short-Term Money Market by making available 'lender of last resort' facilities to selected dealers. In May 1989 the arrangement was changed to an end-of-day repurchase facility such that now dealers are expected to use the facility only after reasonable effort has been made to raise the funds in the market. The repurchase agreements are set by the Bank usually with terms aimed at discouraging excessive use of the facility.

The eight authorised dealers are required by the Reserve Bank to:

- accept loans overnight, at call or for fixed periods, in minimum amounts of $50,000 and invest these funds in Commonwealth Government and other approved securities;
- at all times be willing traders in the buying and selling of approved securities;
- have a minimum capital (i.e., paid-up capital, share premium reserves and retained earnings) level of $10 million;
- adhere to a gearing limit whereby the aggregate risk weighted assets cannot exceed 33 times shareholders' funds; and
- consult regularly with the Reserve Bank on all money market matters and furnish detailed information about their portfolios, operations, interest rates, balance sheets and profit and loss accounts.

AUTHORISED MONEY MARKET DEALERS: ASSETS, LIABILITIES, INCOME AND EXPENDITURE(a)

($ million)

	1987–88	*1988–89*	*1989–90*
Liabilities			
Paid up capital	73.2	61.8	64.5
Reserves	11.4	17.4	18.3
Accumulated surplus (net)	14.7	6.5	12.9
Subordinated loans	2.0	—	—
Borrowings from residents			
Banks	2,901.5	2,399.5	4,533.3
Other financial institutions	172.5	175.1	340.3
Government and public authorities	301.2	16.7	36.6
Other	378.2	236.2	966.3
Borrowings from non-residents	—	1.0	1.7
Other liabilities	29.9	36.3	51.4
Total liabilities	**3,884.6**	**2,950.5**	**6,025.4**
Assets			
Amount owing on loans	1.0	0.8	1.0
Cash and bank deposits	145.3	80.9	202.4
Other placements and deposits	1.0	98.3	40.7
Bills, bonds and other securities	3,722.2	2,753.2	5,763.6
Other financial assets	13.9	16.2	17.1
Other assets	1.3	1.1	0.5
Total assets	**3,884.6**	**2,950.5**	**6,025.4**
Expenditure			
Interest on borrowings	354.9	522.9	680.6
Wages and salaries	4.6	2.0	4.7
Administrative expenses	17.9	15.9	15.7
Other expenditure	8.2	3.8	3.1
Total expenditure	**385.7**	**544.5**	**704.0**
Income			
Interest on loans	21.7	39.9	62.8
Income from placements and other deposits	44.1	129.1	232.8
Income from holdings of:			
Government and public authority securities	216.3	276.0	306.3
Other securities	110.6	54.9	83.3
Other income	17.0	53.8	32.0
Total income	**409.6**	**553.7**	**717.2**

(a) At the balance dates of companies within the financial year shown. Included are only those corporations registered under the *Financial Corporations Act 1974* and categorised as authorised money market dealers during the reference periods.

Source. Authorised Dealers and Money Market Corporations: Assets, Liabilities, Income and Expenditure, Australia (5650.0).

Money market corporations

There are also companies without Reserve Bank end-of-day repurchase facilities which operate in a similar manner to authorised dealers. These companies are recognised under the *Financial Corporations Act 1974* in the category of money market corporations. This category consists of registered corporations whose short-term borrowings are a substantial proportion of their total outstanding provision of finance, which is mainly in the form of loans to authorised dealers in the short-term money market and other liquidity placements, business loans and investments in government, commercial and corporate paper.

Corporations providing short-term finance but which are themselves financed by related corporations with funds raised on a short-term basis, are also classified as money market corporations, as are corporations which borrow principally short term and lend predominantly to related money market corporations.

MONEY MARKET CORPORATIONS: ASSETS, LIABILITIES, INCOME AND EXPENDITURE(a)
($ million)

	1987–88	*1988–89*	*1989–90*
Liabilities			
Paid up capital	2,077.8	2,386.5	2,539.0
Reserves	501.8	402.5	667.6
Accumulated surplus (net)	408.9	86.0	–924.2
Subordinated loans	166.4	186.8	211.8
Borrowings from residents			
By issue of securities	2,823.1	3,853.1	3,704.4
Banks	3,333.4	5,358.7	6,153.0
Other financial institutions	3,298.0	3,315.5	3,637.4
Other	19,826.3	19,289.3	15,508.9
Borrowings from non-residents	9,673.4	11,551.7	16,552.4
Other liabilities	1,636.4	2,761.4	3,184.4
Total liabilities	**43,745.6**	**49,191.6**	**51,234.8**
Assets			
Amount owing on loans	18,588.8	20,560.2	26,044.7
Finance lease receivables	1,166.1	1,394.2	2,025.5
Cash and bank deposits	1,156.2	1,404.1	2,120.2
Other placements and deposits	7,844.8	9,708.5	7,008.6
Bills, bonds and other securities	12,906.0	13,747.7	10,987.3
Other financial assets	1,169.6	1,612.4	1,809.1
Other assets	914.2	764.5	1,239.4
Total assets	**43,745.6**	**49,191.6**	**51,234.8**
Expenditure			
Interest on borrowings	5,409.8	5,730.6	8,103.4
Wages and salaries	294.7	319.8	(b)502.6
Administrative expenses	280.3	372.1	488.4
Other expenditure	804.3	1,257.6	2,290.5
Total expenditure	**6,789.1**	**7,680.0**	**11,384.8**
Income			
Interest on loans	2,621.4	2,878.9	4,031.5
Income from finance leasing	249.4	192.1	677.4
Income from placements and other deposits	1,279.1	1,499.1	1,844.9
Income from bills, bonds, etc.	1,940.1	1,747.7	2,081.3
Other income	1,195.3	1,176.2	1,747.1
Total income	**7,285.2**	**7,494.0**	**10,382.2**

(a) At the balance dates of companies within the financial year shown. Included are only those corporations registered under the *Financial Corporations Act 1974* and categorised as authorised money market dealers during the reference periods. (b) Includes directors' fees.

Source: Authorised Dealers and Money Market Corporations: Assets, Liabilities, Income and Expenditure, Australia (5650.0).

Finance companies

Finance companies are defined as corporations which rely substantially on borrowing in financial markets in Australia and/or from abroad and whose provision of finance is predominantly in the form of business and commercial lending, instalment credit to finance retail sales by others and/or other loans to individuals.

FINANCE COMPANIES: ASSETS, LIABILITIES, INCOME AND EXPENDITURE(a)
($ million)

	1987–88	*1988–89*	*1989–90*
Liabilities			
Paid up capital	1,659.1	1,419.5	1,394.1
Reserves	655.6	662.0	731.0
Accumulated surplus (net)	826.1	1,030.4	1,157.1
Subordinated loans	90.5	100.4	84.4
Borrowings from residents			
By issue of securities	15,216.2	15,793.4	20,362.4
Banks	1,754.8	1,539.6	2,684.3
Other	6,046.7	8,214.2	7,474.7
Borrowings from non-residents	2,030.8	1,783.4	3,427.1
Other liabilities	1,842.0	1,795.7	1,830.6
Total liabilities	**30,121.9**	**32,338.6**	**39,145.8**
Assets			
Amount owing on loans	17,637.2	20,966.2	26,120.0
Finance lease receivables	8,355.0	8,582.9	9,540.4
Cash and bank deposits	217.5	114.2	462.8
Other placements and deposits	1,394.4	712.2	1,123.3
Bills, bonds and other securities	1,497.3	1,049.0	952.2
Other financial assets	573.4	476.2	453.9
Other assets	447.0	438.0	493.2
Total assets	**30,121.9**	**32,338.6**	**39,145.8**
Expenditure			
Interest on borrowings	3,382.9	3,349.8	4,182.7
Wages and salaries	342.2	358.9	37.4
Administrative expenses	373.5	415.8	570.0
Other expenditure	712.8	582.1	658.7
Total expenditure	**4,811.3**	**4,706.6**	**5,785.4**
Income			
Interest on loans	3,264.5	3,338.6	4,047.7
Income from finance leasing	1,378.9	1,382.6	1,439.5
Income from placements and deposits	178.8	143.5	168.2
Income from bills, bonds, etc.	186.0	179.4	112.2
Other income	280.5	303.6	398.0
Total income	**5,288.6**	**5,347.8**	**6,165.6**

(a) At the balance dates of companies within the financial year shown. Included are only those corporations registered under the *Financial Corporations Act 1974* and categorised as finance companies during the reference periods.

Source: Finance Companies: Assets, Liabilities, Income and Expenditure, Australia (5616.0).

General financiers

General financiers are defined as corporations which lend predominantly for business and commercial purposes, instalment credit finance retail sales of others and/or other loans to individuals but which do not rely substantially on borrowings in financial markets in Australia and from abroad.

GENERAL FINANCIERS: ASSETS, LIABILITIES, INCOME AND EXPENDITURE(a)
($ million)

	1987–88	*1988–89*	*1989–90*
Liabilities			
Paid up capital	453.9	421.4	490.5
Reserves	107.6	119.1	131.7
Accumulated surplus (net)	–1.0	68.7	–0.5
Subordinated loans	166.3	95.9	198.3
Borrowings from residents			
By issue of securities	45.1	85.8	919.0
Banks	1,795.7	1,671.4	1,888.5
Other financial institutions	774.1	661.2	1,347.9
Other	3,551.6	4,002.6	3,659.8
Borrowings from non-residents	579.2	1,234.5	1,271.4
Other liabilities	217.0	365.6	688.1
Total liabilities	**7,689.6**	**8,726.2**	**10,594.5**
Assets			
Amount owing on loans	3,626.2	3,743.0	4,707.4
Finance lease receivables	2,070.1	2,359.4	2,998.3
Cash and bank deposits	180.5	298.8	507.6
Other placements and deposits	491.0	529.8	203.9
Bills, bonds and other securities	926.2	1,166.9	1,300.3
Other financial assets	146.0	179.0	236.9
Other assets	249.6	449.1	640.2
Total assets	**7,689.6**	**8,726.2**	**10,594.5**
Expenditure			
Interest on borrowings	778.7	940.4	1,400.7
Wages and salaries	48.2	48.7	68.5
Administrative expenses	68.4	76.3	91.8
Other expenditure	160.9	153.5	437.4
Total expenditure	**1,056.2**	**1,218.9**	**1,998.4**
Income			
Interest on loans	521.0	550.4	778.4
Income from finance leasing	287.0	328.6	525.4
Income from placements and deposits	46.9	111.5	143.4
Income from bills, bonds, etc.	131.0	141.7	241.0
Other income	94.5	151.4	291.1
Total income	**1,080.3**	**1,283.6**	**1,979.3**

(a) At the balance dates of companies within the financial year shown. Included are only those corporations registered under the *Financial Corporations Act 1974* and categorised as general financiers during the reference periods.

Source: General Financiers and Other Financial Corporations: Assets, Liabilities, Income and Expenditure, Australia (5648.0).

Other financial corporations

Under the *Financial Corporations Act 1974*, other financial corporations are defined as registered corporations that are not categorised as building societies, authorised money market dealers, money market dealers, finance companies, credit cooperatives, pastoral finance companies, general financiers or intra-group financiers.

OTHER FINANCIAL CORPORATIONS: ASSETS, LIABILITIES, INCOME AND EXPENDITURE(a)
($ million)

	1987–88	*1988–89*	*1989–90*
Liabilities			
Paid up capital	5.3	5.5	75.4
Reserves	3.8	4.2	207.9
Accumulated surplus (net)	2.0	2.6	9.1
Borrowings from residents			
Banks	9.8	12.7	18.5
Other	525.3	678.3	4,047.9
Borrowings from non-residents	—	1.1	—
Other liabilities	23.9	22.4	35.3
Total liabilities	**570.1**	**726.8**	**4,394.0**
Assets			
Amount owing on loans	76.1	138.1	1,490.3
Finance lease receivables	0.6	0.3	24.8
Cash and bank deposits	52.3	88.5	99.0
Other placements and deposits	118.2	167.5	223.6
Bills, bonds and other securities	297.9	303.8	2,435.3
Other financial assets	17.9	20.6	97.2
Other assets	7.1	8.0	24.0
Total assets	**570.1**	**726.8**	**4,394.0**
Expenditure			
Interest on borrowings	55.7	104.6	587.2
Wages and salaries	7.0	6.6	20.4
Administrative expenses	6.0	7.5	58.2
Other expenditure	6.8	7.9	10.8
Total expenditure	**75.5**	**126.6**	**676.6**
Income			
Interest on loans	8.6	15.3	166.2
Income from finance leasing	0.4	0.4	2.4
Income from placements and deposits	20.5	44.0	57.4
Income from bills, bonds, etc.	33.0	50.7	435.1
Other income	15.4	17.4	39.4
Total income	**77.9**	**127.8**	**700.4**

(a) At the balance dates of companies within the financial year shown. Included are only those corporations registered under the *Financial Corporations Act 1974* and categorised as other financial corporations during the reference periods.

Source: General Financiers and Other Financial Corporations: Assets, Liabilities, Income and Expenditure, Australia (5648.0).

MANAGED FUNDS

A major development in the financial sector in the last decade has been the significant growth in managed funds. A managed fund is an arrangement whereby the funds of a number of investors are pooled together to invest in a particular type or mix of financial asset, with a view to receiving an on-going return. It excludes funds of a speculative nature that do not offer redemption facilities (e.g., agriculture and film trusts) and funds not established for investment purposes (e.g., health funds, general insurance funds).

Managed funds offer a wide range of products to small and institutional investors based on the underlying asset, specialist managers, income returns, taxation benefits and investment strategy. These fund products can also be structured to satisfy individual investor requirements such as the degree of risk, the mix of capital and income growth and the degree of asset diversification.

The major types of managed funds are cash management trusts, public unit trusts, common funds, superannuation funds and approved deposit funds, friendly societies, and statutory funds of life offices.

Cash management trusts

A cash management trust is a unit trust which is governed by a trust deed, is open to the public, generally confines its investments to financial securities available through the short-term money market and whose units are redeemable by the trustee to the unit holder on demand.

The following table summarises the financial operations of cash management trusts.

CASH MANAGEMENT TRUSTS

				Assets ($ million)					
June	*Number of trusts*	*Units in issue at end of period ($ million)*	*Weighted average net yield at end of period (% per annum)*	*Cash and deposits with banks*	*All other deposits and loans*	*Bills of exchange purchased and held*	*Promissory notes purchased and held*	*Other assets*	*Total assets*
1989	19	3,646.1	16.79	667.2	777.0	1,917.0	354.5	33.5	3,749.2
1990	21	4,561.0	14.07	1,476.1	473.8	2,475.9	215.1	38.5	4,679.4
1991	19	5,659.8	9.68	1,100.9	365.7	3,214.1	1,059.6	14.7	5,755.0

Source: Cash Management Trusts, Australia (5635.0).

Public unit trusts

A public unit trust is defined as an arrangement (fund) which is governed by a trust deed between a management company and a trustee company; is open to the public within Australia for the purpose of investing the pooled funds of unit holders to yield returns in the form of income and/or capital gains; and allows unit holders to dispose of their units within a relatively short period of time. The statistics cover property, equity, mortgage, trading, public securities and gold trusts, while cash management trusts, private trusts and trusts exempted from providing redemption facilities (e.g., agriculture and film trusts) are excluded.

The major distinction between a listed and an unlisted unit trust is that a listed unit trust's units must be listed on Australian stock exchanges and adhere to listing requirements similar to those for company shares.

The following table summarises the financial operations of public unit trusts.

PUBLIC UNIT TRUSTS

			Assets ($ million)				
Quarter	*Number of trusts*	*Units in issue at end of the period ($ million)*	*Shares*	*Property at the end of the quarter*	*Loan outstandings secured by mortgages on land and buildings*	*Other assets*	*Total assets*
			UNLISTED				
1989							
June	393	13,042.1	3,177.7	6,082.0	1,950.7	3,646.9	14,857.3
Sept.	378	13,617.1	3,547.0	6,429.7	1,953.7	3,544.4	15,474.8
Dec.	379	14,108.0	3,553.5	6,872.3	1,949.7	3,695.0	16,070.5
1990							
March	381	14,904.2	3,512.9	6,948.1	1,819.4	4,355.9	16,636.3
June	369	14,791.0	3,643.8	6,909.6	1,456.4	4,657.4	16,667.2
Sept.	362	14,369.3	3,158.3	6,770.9	1,351.9	4,432.9	15,714.0
Dec.	360	13,864.6	3,186.0	6,572.3	1,377.3	4,289.7	15,425.3
1991							
March	360	13,787.2	3,781.0	5,937.5	1,348.3	4,211.4	15,278.2
June	362	13,729.1	3,883.5	5,471.1	1,379.8	4,511.8	15,246.2
			LISTED				
1989							
June	51	7,474.2	391.4	6,254.9	33.0	4,139.0	10,818.3
Sept.	49	7,705.6	448.0	6,369.3	33.0	4,117.1	10,967.4
Dec.	47	7,542.7	483.4	6,474.5	33.0	4,134.9	11,125.8
1990							
March	43	7,431.3	471.0	6,359.9	33.0	4,102.4	10,966.3
June	41	7,531.3	306.9	6,384.5	33.0	4,263.0	10,987.4
Sept.	41	7,554.8	301.1	6,376.6	39.2	4,243.1	10,960.0
Dec.	40	7,123.0	188.5	6,331.0	58.7	4,115.3	10,693.5
1991							
March	40	7,118.7	223.1	6,206.2	70.0	4,014.8	10,514.1
June	39	7,230.4	417.1	6,264.4	90.3	3,663.4	10,435.2
			TOTAL				
1989							
June	444	20,516.3	3,569.1	12,336.9	1,983.7	7,785.9	25,675.6
Sept.	427	21,322.7	3,995.0	12,799.0	1,986.7	7,661.5	26,442.2
Dec.	426	21,650.7	4,036.9	13,346.8	1,982.7	7,829.9	27,196.3
1990							
March	424	22,335.5	3,983.9	13,308.0	1,852.4	8,458.3	27,602.6
June	410	22,322.3	3,950.7	13,294.1	1,489.4	8,920.3	27,654.5
Sept.	403	21,924.1	3,459.4	13,147.5	1,391.1	8,675.9	26,673.9
Dec.	400	20,987.6	3,374.5	12,903.3	1,436.0	8,405.0	26,118.8
1991							
March	400	20,905.9	4,004.1	12,143.8	1,418.3	8,226.1	25,792.3
June	401	20,959.5	4,300.6	11,735.5	1,470.1	8,175.3	25,681.5

Source: Public Unit Trusts, Australia (5645.0).

Common funds

Common funds comprise cash funds, equity funds, mortgage funds, property funds and other funds (where the primary asset is other than those specified, e.g., interest bearing securities).

Common funds are set up to enable trustee companies (the managers of common funds) to combine depositors' funds and other funds held in trust in an investment pool with the intention of investing in specific types of securities and/or assets.

COMMON FUNDS, ASSETS
($ million)

						Quarter
				1990		1991
Assets	March	June	September	December	March	June
Cash & deposits—banks	724	686	1,106	988	967	920
Cash & deposits—other financial institutions	869	587	421	290	536	205
Loans and placements	858	859	822	786	782	782
Short-term assets	3,924	4,149	3,841	4,197	3,934	4,009
Long-term assets	162	48	39	43	42	38
Equities and other investments	360	375	362	328	376	491
Other assets	251	254	290	265	351	200
Total assets	**7,148**	**6,958**	**6,881**	**6,897**	**6,988**	**6,645**

Source: Common Funds, Australia (5657.0).

Superannuation funds and approved deposit funds

Superannuation funds are funds which have been constituted to provide retirement benefits for their members. The funds are made up of contributions paid by employers (on behalf of employees) or by employers, or both. Most superannuation arrangements are a mixture of employer/employee contributions with the employer either contributing regularly to the fund or, as is the case with many public sector funds, when the benefit falls due. The contributions are used by fund managers to purchase investments and the resulting assets finance the retirement payments to fund members.

Approved deposit funds were established in 1984 for recipients of eligible termination payments (ETPs) to preserve their benefits until retirement age. Approved deposit funds accept individual ETPs and pool them into a fund for investment purposes.

The following table presents statistics on the assets of public and private superannuation funds and approved deposit funds.

SUPERANNUATION FUNDS AND APPROVED DEPOSIT FUNDS, ASSETS
($ million)

						Quarter
				1990		1991
Assets	March	June	September	December	March	June
Assets in Australia—shares	29,500	30,116	29,621	27,574	31,424	33,754
—land and buildings	19,447	19,603	19,820	18,745	19,015	17,930
—other	56,895	59,291	61,889	62,271	63,876	66,479
Assets overseas—	15,875	15,317	13,871	14,857	17,762	17,366
Total assets—superannuation funds	114,715	117,020	117,747	115,803	124,085	127,272
—approved deposit funds	7,002	7,307	7,454	7,644	7,992	8,257
Total assets	**121,717**	**124,327**	**125,201**	**123,447**	**132,077**	**135,529**

Source: Assets of Superannuation Funds and Approved Deposit Funds (5656.0).

Friendly societies

When founded in 1840 friendly societies were formed on the basis of group interests such as craft or religion. They have since evolved to offer a full range of financial services to the public at large, including the operation of investment funds. Friendly societies are registered under relevant State legislation and operate in all States.

The following table summarises the assets of the 14 largest friendly societies which represent approximately 85 per cent of the assets of all societies in Australia.

FRIENDLY SOCIETIES, ASSETS
($ million)

						Quarter
				1990		*1991*
Assets	*March*	*June*	*September*	*December*	*March*	*June*
Cash and deposits						
With banks	807	1,226	1,315	857	728	1,707
With other financial institutions	488	455	460	502	512	542
Loans and placements	973	1,084	1,048	920	895	849
Bills of exchange	1,684	1,753	736	889	967	937
Equities and units in trusts	115	179	178	176	170	182
Government bonds and securities	989	885	1,458	1,755	1,955	1,171
Other assets	1,968	1,572	1,554	1,851	1,926	1,941
Total assets	**7,024**	**7,154**	**6,749**	**6,950**	**7,153**	**7,329**

Source: Assets and Liabilities of Friendly Societies, Australia (5660.0).

Life insurance

The following statistics relate to life insurance and superannuation business conducted through the statutory funds of life companies with head offices in Australia and the Australian business of life companies with head offices overseas. Also included are the life business operations reported by four State Government Insurance Offices.

Information contained in the following table does not relate to uniform accounting periods but to the balance dates of organisations falling within the calendar year shown.

LIFE INSURANCE

		Insurance and endowment policies		
	Number of policies ('000)	Sum insured ($ million)	Business issued by single premiums ($ million)	Annual premiums ($ million)
ORDINARY AND INDUSTRIAL BUSINESS				
New policies issued				
1988	958	37,766	2,654.2	467.7
1989	822	43,530	1,914.7	641.4
1990	801	49,276	1,883.9	753.6
Policies discounted or reduced(a)				
1988	733	19,801	. .	223.3
1989	798	22,937	. .	269.5
1990	825	26,183	. .	279.6
Policies existing at end of				
1988	6,398	152,535	. .	1,840.6
1989	6,422	173,128	. .	2,212.5
1990	6,420	189,269	. .	2,537.3
SUPERANNUATION BUSINESS				
New policies issued				
1988	353	53,873	2,205.7	1,511.4
1989	460	64,917	2,796.2	1,891.8
1990	511	79,745	4,258.8	2,040.5
Policies discontinued or reduced(a)				
1988	96	24,546	. .	564.5
1989	124	27,457	. .	823.6
1990	200	31,696	. .	1,426.3
Policies existing at end of				
1988	1,958	169,354	. .	4,288.2
1989	2,294	206,814	. .	5,356.4
1990	2,532	244,187	. .	5,719.5

(a) Includes transfers.

Source: Insurance and Superannuation Commission Life Insurance Group, Half Yearly Financial Bulletin on Life Insurance.

GENERAL INSURANCE

The following statistics on general insurance relate to the operations of:

- bodies corporate authorised to carry on insurance business under the *Insurance Act 1973;* and
- government instrumentalities, i.e., State Government Insurance Offices and Commonwealth and State government instrumentalities in respect of their general insurance business.

These statistics are based on the following definitions. *Premiums* comprise the full amount receivable in respect of direct insurance and facultative reinsurance business written or renewed within Australia during the year. Premiums are not adjusted to provide for premiums unearned at the end of the year and consequently the amounts differ from 'earned premium income' appropriate to the year. *Claims* comprise, for direct insurance and facultative reinsurance business, payments made during the year. Salvage and other amounts recoverable other than reinsurance recoveries have been deducted.

Information contained in the following tables does not relate to uniform accounting periods but to the organisations' financial years which ended during the years shown.

GENERAL INSURANCE: PREMIUMS AND CLAIMS BY PRINCIPAL CLASS OF BUSINESS
($ million)

Class of business	*1986–87*	*1987–88*	*1988–89*	*1989–90*
PREMIUMS				
Fire(a)	854.2	917.9	901.6	914.9
House Owners' and House-holders'	826.3	908.1	940.0	1,039.3
Contractors' All Risks	86.0	86.1	95.9	93.4
Marine and Aviation	240.1	255.8	268.9	286.6
Motor Vehicle Comprehensive	1,664.9	1,943.8	2,054.8	2,304.3
Compulsory Third Party (Motor Vehicle)	132.4	132.6	435.1	1,031.5
Employers Liability(b)	1,267.9	411.7	281.1	304.5
Public Liability(c)	500.1	621.5	630.9	635.0
All other	703.8	788.9	866.2	984.7
Total	**6,275.6**	**6,066.4**	**6,474.5**	**7,594.2**
CLAIMS				
Fire(a)	403.0	375.0	458.0	533.5
House Owners' and House-holders'	409.3	175.0	465.7	593.3
Contractors' All Risks	41.6	87.0	37.7	57.3
Marine and Aviation	125.8	97.3	126.0	171.8
Motor Vehicle Comprehensive	1,370.7	370.4	1,549.9	1,826.3
Compulsory Third Party (Motor Vehicle)	60.8	293.3	68.6	116.5
Employers Liability(b)	1,308.6	2,493.8	918.8	747.8
Public Liability(c)	140.2	853.3	239.9	217.6
All other	325.4	227.3	359.3	431.3
Total	**4,185.5**	**4,972.4**	**4,223.9**	**4,695.4**

(a) Includes sprinkler leakage, loss of profits, and crop and hailstone insurance. (b) Excludes workers' compensation insurance in the coal mining industry in NSW. (c) Includes product liability and professional indemnity insurance.

Source: Insurance and Superannuation Commission General Insurance Group, Selected Statistics on the General Insurance Industry.

MAJOR LENDING BY FINANCIAL INSTITUTIONS

As well as showing information about the different types of financial institutions, financial statistics show information about the lending activity of all significant lenders. The measure of lending used is commitments made. A commitment is a firm offer to provide finance which has been accepted by the client.

These lending activities are grouped into four major types of lending — housing, personal, commercial and leasing. More detail regarding housing finance is contained in the chapter, Construction and Housing.

LENDING COMMITMENTS BY FINANCIAL INSTITUTIONS
($ million)

Type of lending activity	*1988–89*	*1989–90*	*1990–91*
Housing finance	22,787.8	18,821.8	20,652.8
Personal finance	22,419.2	22,309.4	20,205.0
Commercial finance	115,055.9	94,947.9	87,452.2
Lease finance	8,801.7	8,217.9	5,209.4
Total	**169,064.6**	**144,297.0**	**133,519.4**

Source: See the tables which follow for each type.

Personal finance

The following tables present statistics of commitments made by significant lenders (i.e., banks, credit co-operatives, finance companies, etc.) to individuals for their own personal (non-business) use.

PERSONAL FINANCE COMMITMENTS(a): TYPE OF LENDER
($ million)

Year	All banks	Finance companies	Credit cooperatives	Other lenders(b)	Total
1988–89	15,420.2	4,407.4	2,188.7	403.0	22,419.2
1989–90	14,815.0	4,800.4	2,224.7	469.3	22,309.4
1990–91	13,288.4	4,154.4	2,183.8	578.5	20,205.0

(a) Includes both fixed loan facilities and new and increased lending commitments under revolving credit facilities. (b) Includes permanent building societies, general financiers and retailers.
Source: Personal Finance, Australia (5642.0).

PERSONAL FINANCE COMMITMENTS: TYPE OF FACILITY, ALL LENDERS
($ million)

		Revolving credit commitments			
				Credit limits	
Year	Fixed loan commitments	New and increased credit limits	Cancellations and reductions in credit limits	Total	Used
1988–89	14,312.1	8,107.1	5,232.1	24,492.2	10,944.0
1989–90	13,761.8	8,547.6	6,107.3	26,871.3	12,213.9
1990–91	12,622.6	7,582.4	7,041.2	27,645.9	12,947.6

Source: Personal Finance, Australia (5642.0).

Commercial finance

The statistics in the following tables measure commitments made by significant lenders (i.e., banks, finance companies, money market corporations, etc.) to government, private and public enterprises, non-profit organisations and to individuals for investment and business purposes.

COMMERCIAL FINANCE COMMITMENTS(a): TYPE OF LENDER
($ million)

Year	Banks	Finance companies	Money market corporations	Other lenders(b)	Total
1988–89	91,748.7	13,341.6	9,788.6	261.8	115,140.7
1989–90	74,884.7	10,553.2	8,230.6	1,283.3	94,951.9
1990–91	68,949.4	6,274.1	10,266.3	1,962.5	87,452.2

(a) Includes both fixed loan facilities and new and increased lending commitments under revolving credit facilities. (b) Includes permanent building societies, general financiers and pastoral finance companies.
Source: Commercial Finance, Australia (5643.0).

COMMERCIAL FINANCE COMMITMENTS: FIXED LOAN FACILITIES
($ million)

Year	*Construction*	*Purchase of real property*	*Purchase of plant and equipment*	*Re-financing*	*Other purposes*	*Total*
1988–89	7,785.2	14,655.4	3,203.1	4,343.5	16,571.8	46,599.0
1989–90	6,062.9	10,350.5	3,410.2	3,577.9	14,102.7	37,504.3
1990–91	3,208.5	7,533.2	2,948.2	8,225.5	13,167.4	35,082.6

Source: Commercial Finance, Australia (5643.0).

COMMERCIAL FINANCE COMMITMENTS(a): INDUSTRY OF BORROWER
($ million)

	1989–90			*1990–91*		
Industry of borrower	*New fixed loan commitments during period*	*New and increased credit limits during period*	*Total new commitments during period*	*New fixed loan commitments during period*	*New and increased credit limits during period*	*Total new commitments during period*
Agriculture, forestry, fishing and hunting	1,963.3	3,378.2	5,341.5	1,874.5	3,735.6	5,610.1
Mining	596.0	2,354.8	2,950.8	589.6	2,590.2	3,179.8
Manufacturing	2,150.6	8,654.3	10,804.9	2,981.2	8,811.4	11,792.6
Construction	5,720.8	4,940.6	10,661.4	2,920.2	6,740.5	9,660.7
Wholesale trade	1,507.5	2,841.4	4,348.9	1,203.4	2,742.6	3,946.0
Retail trade	3,561.4	5,162.2	8,723.6	4,073.2	3,749.6	7,822.8
Transport and storage	1,266.8	1,215.0	2,481.8	936.7	1,815.5	2,752.2
Finance, investment and insurance	4,571.2	13,860.3	18,431.5	6,768.3	9,001.2	15,769.5
Property and business services	7,282.0	7,127.6	14,409.6	6,182.9	5,575.3	11,758.2
Other industries	8,888.7	7,909.2	16,797.9	7,552.7	7,607.7	15,160.4
Total industries	**37,508.3**	**57,443.6**	**94,951.9**	**35,082.6**	**52,369.6**	**87,452.2**

(a) Includes both fixed loan facilities and new and increased lending commitments under revolving credit facilities.
Source: Commercial Finance, Australia (5643.0).

Lease finance

The statistics in the following tables measure lease finance commitments made by significant lenders (i.e., banks, money market corporations, finance companies, general financiers, etc.) to trading and financial enterprises, non-profit organisations, governments, public authorities and individuals.

LEASE FINANCE COMMITMENTS: TYPE OF LESSOR
($ million)

Year	*All banks*	*Money market corporations*	*Finance companies*	*General financiers*	*Total*
1988–89	2,329.6	456.2	5,106.7	909.1	8,801.7
1989–90	2,789.8	411.3	4,064.8	950.9	8,216.7
1990–91	1,304.8	278.7	2,912.5	713.4	5,209.4

Source: Lease Finance, Australia (5644.0).

LEASE FINANCE COMMITMENTS: TYPE OF GOODS LEASED
($ million)

Types of goods	*1988–89*	*1989–90*	*1990–91*
Motor vehicles and other transport equipment	4,845.9	4,041.7	2,933.5
Construction and earth moving equipment	439.3	402.4	260.5
Agricultural machinery and equipment	243.0	223.9	125.9
Automatic data processing equipment and office machinery	1,138.9	1,369.9	884.1
Shop and office furniture, fittings and equipment	74.9	572.7	400.4
Other goods	1,459.7	1,607.3	605.0
Total	**8,801.7**	**8,217.9**	**5,209.4**

Source: Lease Finance, Australia (5644.0).

LEASE FINANCE COMMITMENTS: INDUSTRY OF LESSEE
($ million)

Industry of lessee	*1988–89*	*1989–90*	*1990–91*
Agriculture, forestry, fishing and hunting	547.5	430.6	277.1
Mining	133.4	193.9	109.2
Manufacturing	1,090.5	973.5	517.7
Construction	706.9	591.0	365.9
Wholesale trade	319.7	298.9	230.4
Retail trade	1,119.0	998.2	798.9
Transport and storage	1,204.9	1,242.7	598.6
Finance, investment and insurance	681.5	633.5	420.1
Property and business services	1,273.5	1,147.0	790.9
Community services	430.0	217.9	193.9
Other industries	1,294.8	1,490.6	906.8
Total industries	**8,801.7**	**8,217.9**	**5,209.4**

Source: Lease Finance, Australia (5644.0).

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Permanent Building Societies: Assets, Liabilities, Income and Expenditure, Australia (5632.0)

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Half Yearly Financial Bulletin on Life Insurance, Insurance and Superannuation Commission Life Insurance Group

Reserve Bank of Australia Bulletin

Selected Statistics on the General Insurance Industry, Insurance and Superannuation Commission General Insurance Group

FOR MORE INFORMATION

The ABS has a far wider range of information on Australia than that contained in the *Year Book*. Information is available in the form of regular publications, electronic data services, special tables and from investigations of published and unpublished data.

For further information contact ABS Information Services at one of the addresses listed on the page facing the Introduction to the *Year Book*.

Chapter Twenty-six

Public Finance

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This chapter deals with the financial activities of the organisations which make up the three levels of government in the Australian political system — Commonwealth, State and local — and which collectively constitute the public sector. An account is given of the activities of each level of government, with particular emphasis being given to the Commonwealth Government. Tables are then presented which bring together the transactions of all public non-financial enterprises to highlight the role in the Australian economy of the public sector as a whole. This is followed by a section on government borrowing activities at all levels.

Concepts and definitions used in public finance statistics

Except for those explicitly sourced to Budget Papers, the statistics in this chapter are provided from the system of government finance statistics (GFS). A separate publication *Classification Manual for Government Finance Statistics, Australia* (1217.0) assists in understanding these statistics. It outlines the major concepts used, provides definitions of the enterprise unit used for GFS collections and of transactions classifications employed. The GFS classifications used in the tables are:

- the *Economic Transactions Framework* (ETF) which categorises outlays, revenue, grants received and financing transactions according to their economic character to facilitate study of the macroeconomic effect of government activity on the economy and to provide the basic building blocks for grouping transactions to be incorporated into the Australian National Accounts;
- the *Taxes, Fees and Fines Classification* (TFFC) which dissects this major form of government revenue according to the type of tax, fee or fine collected; and
- the *Government Purpose Classification* (GPC) which is used to group outlays with similar functions to facilitate study of the broad purposes of public sector spending and assessment of the effectiveness of outlays in meeting government policy objectives.

COMMONWEALTH GOVERNMENT FINANCE

Financial provisions of the Constitution

The main provisions of the Constitution relating to the initiation and development of the financial system of the Commonwealth of Australia are contained in sections 81 to 105A of the Commonwealth Constitution (see the chapter, Government).

Two other sections which have a most important bearing on questions of Commonwealth finance are sections 69 and 51. Section 69 provides for the transfer from the States to the Commonwealth of certain specified departments and section 51, in outlining the powers of the Commonwealth Parliament, implies the transfer or creation of other departments.

Details of current provisions for financial assistance to the States are contained in *Commonwealth Budget Paper No. 4, Commonwealth Financial Relations with Other Levels of Government, 1991–92.*

The *Audit Act 1901* lays down the procedure which must be followed in accounting for the receipt and disbursement of public funds. The general administration of Commonwealth Government finances is the responsibility of the Commonwealth Minister for Finance.

Commonwealth Government Budget

The Commonwealth Government Budget records the transactions of those enterprises of the Commonwealth Government whose receipts and payments are summarised in the statements of Public Account balances. In 1989–90, the change in cash balances was represented by the following:

	$'000
Net Cash receipts of the Consolidated Revenue Fund	97,261,920
plus cash receipts of Loan Fund	40,722,355
plus cash receipts of Trust Fund	15,733,086
Total	153,717,361
less cash payments from Consolidated Revenue Fund	97,261,920
less cash payments from Loan Fund	40,722,372
less cash payments from Trust Fund (including decrease in investments of the Trust Fund)	14,470,315
Total	152,454,607
equals increase in cash balances	1,262,754

Revenues from taxation and other sources are paid into the Consolidated Revenue Fund, from which the main expenditures are for defence, social services, payments to the States and general administration. The Trust Fund covers special transactions outside the ordinary operations of departmental expenditures, such as pension funds and moneys held for expenditure by the Commonwealth Government at some future time. The Loan Fund receives its funds from the sale of Commonwealth government securities and the expenditures from the Fund are made in accordance with the purpose of issue of each loan. The main disbursements from the Loan Fund are to the States by way of distribution of the proceeds of loans raised by the Commonwealth Government on their behalf and by capital assistance grants, the remaining disbursements being mainly for Commonwealth Government purposes.

The estimated outlay, revenue and deficit of the Budget for 1990–91 are set out in the table which follows, together with figures for the years 1985–86 to 1990–91. The national accounting presentation of the Budget is shown in order to be consistent with other transactions figures given in this chapter.

It should be noted that some transactions undertaken by enterprises covered by the Budget are not reflected in the change in cash balances, usually because they are not cash transactions or because a receipt and a payment are offset against each other so that only a net amount is included in published totals. The national accounting presentation of the Budget includes these additional transactions.

COMMONWEALTH GENERAL GOVERNMENT BUDGET SECTOR TRANSACTIONS BY ECONOMIC TYPE

($ million)

	1985–86	*1986–87*	*1987–88*	*1988–89*	*1989–90*	*1990–91*
Current outlays						
Final consumption expenditure	12,511	13,556	14,020	14,716	15,526	17,243
Current transfer payments						
Interest	7,037	7,940	7,913	7,483	7,344	6,158
Subsidies(a)	1,702	1,684	1,825	1,704	1,850	2,843
Personal benefit payments	22,339	24,082	26,819	25,014	26,325	30,570
Grants to non-profit institutions	967	1,120	957	1,101	1,161	1,152
Grants to non-budget sector(a)	2,052	2,063	2,435	6,182	7,980	8,776
Grants to other governments	17,974	19,477	20,879	21,568	22,922	24,646
Grants overseas	840	810	843	916	1,070	1,036
Other transfers	—	3	4	5	7	5
Total current transfer payments	52,911	57,179	61,675	63,973	68,659	75,186
Total current outlays	*65,422*	*70,735*	*75,695*	*78,689*	*84,185*	*92,429*
Capital outlays						
Gross capital formation(b)	603	548	606	532	687	971
Net land and intangible assets	–111	–87	–378	–121	24	–65
Capital transfer payments						
Grants to non-budget sector	516	679	665	322	104	100
Grants to other governments	3,247	3,250	3,038	3,062	3,505	3,896
Grants to other sector(c)	328	303	348	352	316	250
Total capital transfer payments	4,091	4,232	4,051	3,736	3,926	4,245
Net advances						
To non-budget sector	–99	–123	–46	29	–136	–260
To other governments	777	546	–46	–124	–485	–1,858
To other sector(d)	119	106	–573	–110	–575	578
Total net advances	797	529	–665	–205	–1,197	–1,540
Total capital outlays	*5,380*	*5,222*	*3,614*	*3,942*	*3,440*	*3,612*
Total outlays	**70,802**	**75,957**	**79,309**	**82,631**	**87,625**	**96,041**

For footnotes *see* end of table.

COMMONWEALTH GENERAL GOVERNMENT BUDGET SECTOR TRANSACTIONS BY ECONOMIC TYPE — *continued*
($ million)

	1985–86	*1986–87*	*1987–88*	*1988–89*	*1989–90*	*1990–91*
Revenue						
Taxation						
Income tax on companies	6,674	7,888	10,348	11,992	15,051	16,622
Income tax on persons	32,734	38,074	41,885	47,543	50,395	51,221
Sales tax, customs and excise duties	18,503	19,397	21,414	22,424	23,982	23,050
Tax on certain bank transactions	202	261	330	358	378	229
ACT taxes and charges	143	177	239	233	—	—
Other taxes, fees and fines						
Primary industry charges	51	55	59	63	67	80
Primary industry levy	512	577	691	778	789	1,233
Broadcasting and television licence fees	69	77	86	110	175	124
Other taxes fees and fines	316	296	331	331	407	519
Total	*59,205*	*66,803*	*75,383*	*83,833*	*91,244*	*93,078*
Non-taxation revenue						
Interest, rent, dividends, royalties, etc.	6,019	6,663	6,083	4,880	4,627	4,859
Total revenue	**65,224**	**73,466**	**81,465**	**88,713**	**95,871**	**97,937**

(a) Current grants to PTE's are classified as subsidies and are not included in grants to non-budget sector. (b) Gross Capital Formation covers the purchase of new fixed assets purchased less sales of second-hand fixed assets and increase in stocks. (c) Capital grants to public financial enterprises, private enterprises, persons and non-profit organisations. (d) Net advances to public financial enterprises, private enterprises, persons, non-profit organisations and overseas.

Source: Budget Paper No.1, Budget Statements, 1991–92.

Net Financing Requirement is financing transactions less net intra-sector advances received and increases in provisions. It is a measure which encompasses governments' net borrowing, their call on cash reserves and the net change in their other financial assets and liabilities. It excludes net advances received from other parts of the non-financial public sector in order to provide an unduplicated measure of this sector's demand for financing from the rest of the economy and overseas.

Commonwealth non-budget enterprises

In addition to the group of Commonwealth government enterprises whose transactions are covered by the Budget (i.e., itemised in the Consolidated Revenue Fund, the Loan Fund, or recorded in a Trust Fund), there are a number of organisations owned and/or controlled by the Commonwealth Government whose transactions do not, for the most part, pass through the Public Account. This category includes public trading enterprises such as the Australian Postal Commission, Australian Telecommunications Commission, Overseas Telecommunications Commission, Qantas Airways Ltd, Australian Airlines Limited, the Australian Shipping Commission, the Snowy Mountains Hydro-Electric Authority, and public financial enterprises such as the Reserve Bank of Australia and the Commonwealth Bank of Australia. These public trading and financial enterprises are bodies which aim at covering the bulk of their expenses by revenue either from sales of goods and services (trading enterprises), or by charges for services and net interest receipts (financial enterprises). As well as these enterprises, there are other government enterprises which record most of their transactions outside the Public Account but have only minor independent sources of revenue and are financed almost entirely from funds voted to them each year from the Consolidated Revenue Fund. In order that the national accounting presentation may indicate, as completely as possible, the direct effect of the Budget on demand, appropriations to this last group of enterprises are treated as final expenditure in the Budget. Enterprises in this category include the Australian Broadcasting Corporation, Australian National University and the Australian Nuclear Science and Technology Organisation.

The transactions of Commonwealth government bodies not covered by the Budget may be brought together and consolidated with the transactions recorded in the Budget to yield figures of the transactions of all Commonwealth public sector enterprises which are owned and/or controlled by the

Commonwealth Government. The remaining tables in this section have been prepared on that basis.

Public financial enterprises have been omitted from the consolidated accounts presented. Their omission is on the basis that combining the income and outlay and capital financing transactions of the Reserve Bank, the publicly owned trading and savings banks, government insurance offices and other public financial institutions with the equivalent transactions of public trading enterprises and general government enterprises seems to provide a less meaningful account of public sector activity. For example, omission of the borrowing and lending activities of the government banks and the Reserve Bank allows attention to be centred on the borrowing and lending activities of general government and public trading enterprises which are quite different in nature and economic effect from the financing activities of the banking system.

Summary of outlay, revenue and net public sector borrowing requirement

The outlay and revenue, and net financing requirement, of all non-financial enterprises of the Commonwealth Government for the six-year period ending 1989–90 are given in the following table.

FINANCIAL TRANSACTIONS OF COMMONWEALTH GOVERNMENT
($ million)

	1984–85	*1985–86*	*1986–87*	*1987–88*	*1988–89*	*1989–90*
Current outlays	60,181	66,450	72,101	77,230	79,985	86,354
General government final consumption expenditure	12,903	14,480	15,898	16,472	17,485	18,691
Requited current transfer payments(a)	6,302	7,928	8,889	9,131	8,850	9,079
Unrequited current transfer payments	40,976	44,041	47,314	51,626	53,650	58,584
Subsidies paid to enterprises	1,902	1,910	1,746	1,964	1,902	2,036
Personal benefit payments	20,658	22,343	24,176	26,923	28,412	31,335
Current grants	18,416	19,788	21,391	22,739	23,331	25,206
To non-profit institutions	882	972	1,090	1,014	1,170	1,202
To foreign governments and organisations	861	855	824	849	932	1,083
To State and local governments	16,673	17,961	19,477	20,877	21,229	22,922
Other current transfer payments	—	—	—	—	5	7
Capital outlays	7,412	8,448	8,059	6,153	7,690	11,785
Gross fixed capital expenditure	2,807	4,129	4,469	3,903	4,174	6,076
Expenditure on new fixed assets	3,103	4,496	4,768	4,350	4,981	6,462
Expenditure on second-hand fixed assets (net)	–296	–367	–299	–446	–807	–386
Increase in stocks	170	–282	–612	–395	176	2,751
Expenditure on land and intangible assets (net)	–91	–60	–52	–356	99	157
Capital transfer payments	3,601	3,614	3,600	3,431	3,457	3,858
Capital grants	3,601	3,614	3,600	3,431	3,457	3,858
To State and local governments	3,166	3,246	3,250	3,039	3,042	3,506
To other sectors	435	367	351	393	414	352
Advances paid (net)	924	1,048	653	–431	–215	–1,057
To State and local government	799	786	546	–46	–111	–485
To other sectors	125	262	107	–386	–104	–572

For footnotes *see* end of table.

FINANCIAL TRANSACTIONS OF COMMONWEALTH GOVERNMENT — *continued*
($ million)

	1984–85	*1985–86*	*1986–87*	*1987–88*	*1988–89*	*1989–90*
Revenue and grants received	59,502	66,907	74,467	84,581	92,506	98,476
Taxes, fees and fines	53,248	59,134	66,789	75,396	83,958	91,237
Net operating surpluses of public trading enterprises	2,034	2,322	1,453	3,294	3,711	2,592
Property income and other revenue	4,220	5,450	6,225	5,891	4,838	4,646
Income from Commonwealth public financial enterprises	1,066	2,025	2,725	1,981	633	567
Interest received from	2,652	2,981	3,153	3,391	3,614	3,556
State government and local governments on advances	2,230	2,334	2,432	2,484	2,468	2,534
Other	421	646	719	905	1,146	1,021
Other income	502	444	348	519	590	523
Financing transactions(b)	8,091	7,990	5,692	–1,198	–4,831	–338
Net advances received	—	—	—	—	—	—
Net domestic borrowing	6,617	5,329	4,304	–2,201	–1,951	–3,663
Net borrowing from abroad	1,609	969	1,746	–1,352	–2,142	–1,624
Increase in provisions	1,029	1,339	1,701	1,864	2,018	2,185
Other financing transactions(b)	–1,164	353	–2,059	491	–2,755	2,764

(a) Interest, land rent, royalties and dividends paid. (b) Calculated as a residual.

Source: Government Finance Statistics, Australia (5512.0).

Commonwealth government financial assistance to the States and the Territories

This takes two main forms, grants for general and specific purposes; and assistance for developmental and other specific purposes in the form of repayable advances.

Some information about these forms of financial assistance is contained in the *Commonwealth Government Budget Paper No. 4, Commonwealth Financial Relations with Other Levels of Government.* Further information also appears in chapters of this *Year Book* dealing with the specific function which the payments are designed to serve.

Grants to the States and the Territories

The following table shows details of grants to the States and the Territories (including local government) classified by purpose.

GRANTS TO STATES AND TERRITORIES BY GOVERNMENT PURPOSE CLASSIFICATION AND STATE, 1989–90
($ million)

	NSW	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Total*
Current grants	*6,875*	*5,369*	*3,945*	*2,231*	*2,388*	*815*	*789*	*510*	*22,922*
General public services, defence, public order and safety	54	48	28	19	19	3	—	2	174
Education	1,448	1,233	666	367	406	112	35	42	4,308
Health	1,215	887	585	323	317	96	22	51	3,497
Social security and welfare	158	141	63	42	47	19	8	8	485
Housing and community amenities	4	2	1	1	1	6	1	7	24
Fuel and energy	19	132	4	—	10	32	3	—	199
Agriculture, forestry, fishing and hunting	25	18	25	12	17	24	13	—	134
Mining, manufacturing and construction	10	—	–1	—	—	—	—	—	9
Transport and communications .	9	5	4	2	4	—	1	—	26
Other economic affairs	6	3	10	2	4	3	3	—	30
Other purposes	3,927	2,900	2,559	1,463	1,564	520	704	400	14,037

... *continued*

GRANTS TO STATES AND TERRITORIES BY GOVERNMENT PURPOSE CLASSIFICATION AND STATE, 1989–90 — *continued*
($ million)

	NSW	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Total*
Capital grants	*1,090*	*737*	*552*	*297*	*378*	*201*	*175*	*76*	*3,505*
General public services, defence, public order and safety	—	—	—	—	—	40	—	—	40
Education	216	146	90	44	58	14	8	6	581
Health	16	13	9	6	6	7	—	1	58
Social security and welfare	27	14	11	5	7	12	1	1	78
Housing and community amenities	295	214	134	110	91	49	81	17	991
Recreation and culture	1	1	1	1	1	1	—	—	4
Agriculture, forestry, fishing and hunting	3	2	5	1	10	—	—	—	20
Transport and communications	437	276	270	92	181	50	40	12	1,357
Other economic affairs	–1	—	1	—	—	—	—	—	—
Other purposes	96	71	32	39	24	29	45	39	375
Total current and capital grants	**7,965**	**6,106**	**4,497**	**2,528**	**2,766**	**1,016**	**964**	**586**	**26,428**

Source: Government Finance Statistics, Australia (5512.0).

Advances to the States and the Territories

The Commonwealth provides financial assistance for State projects by way of repayable advances. Borrowings of the Loan Council which are advanced to the States for their work programs and advances for State housing projects represent the largest proportion of the total funds advanced. Full descriptions of the various programs for which funds have been advanced in recent years are given in *Commonwealth Budget Paper No. 4, Commonwealth Financial Relations with Other Levels of Government.*

The following table shows figures of net advances to the States and the Territories by purpose.

NET ADVANCES TO STATES AND THE TERRITORIES BY GOVERNMENT PURPOSE CLASSIFICATION, 1989–90
($ million)

	NSW	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Total*
Net advances	*–112*	*–82*	*–60*	*–130*	*–32*	*–18*	*–9*	*–41*	*–485*
Defence	–1	—	—	—	—	—	—	—	–2
Housing and community amenities	–29	–19	–6	–7	–7	–4	–2	–60	–135
Recreation and culture	—	—	—	—	—	—	—	—	—
Fuel and energy	—	—	–4	—	—	—	—	—	–4
Agriculture, forestry, fishing and hunting	–8	–7	–7	—	–3	—	—	—	–25
Mining, manufacturing and construction	—	—	—	—	—	—	—	—	—
Transport and communications	–2	–1	–1	—	–1	—	—	—	–6
Other purposes	–73	–55	–42	–122	–21	–14	–6	18	–315

NOTE: Minus sign (–) denotes excess of repayments.

Source: Government Finance Statistics, Australia (5512.0).

Main sources of finance

The main sources of Commonwealth government finance are taxation, income of public trading and financial enterprises, other factor income transfers, borrowing, and other financing transactions. Taxation constitutes by far the major source of revenue.

In what follows, an account is given of the components of Commonwealth government taxation. Borrowings and other financing activities of Commonwealth enterprises are dealt with for convenience in a later section relating to the debt of all public sector enterprises.

Commonwealth government taxation — summary

The following table shows Commonwealth government taxation revenue classified by type of tax for the six years ending 1990–91.

COMMONWEALTH GOVERNMENT: TAXES, FEES AND FINES BY TYPE
($ million)

Type of tax	*1985–86*	*1986–87*	*1987–88*	*1988–89*	*1989–90*	*1990–91*
Taxes, fees and fines	59,134	66,812	75,425	83,918	91,185	93,322
Taxes on income	39,389	45,386	51,279	58,417	64,099	66,377
Income taxes levied on individuals	32,714	38,062	41,887	47,537	50,020	50,170
Personal income tax	32,713	38,061	41,886	47,536	50,019	50,168
Mining withholding tax	1	1	1	1	1	2
Income taxes levied on enterprises	5,979	6,539	8,573	9,981	12,982	15,111
Company income tax	5,957	6,526	8,562	9,974	12,606	14,058
Income tax paid by superannuation funds	22	13	11	7	376	1,053
Income taxes levied on non-residents	696	785	818	898	1,097	1,095
Dividend withholding tax	209	172	125	97	115	109
Interest withholding tax	351	466	541	638	799	790
Other income tax levied on non-residents	135	147	153	162	183	196
Employers' payroll taxes	56	593	948	1,069	1,204	1,312
General taxes (payroll tax)	29	34	41	51	—	—
Selective taxes (stevedoring industry charges)	27	24	26	28	35	51
Fringe benefits tax	—	535	881	990	1,168	1,262
Taxes on property	261	342	464	486	387	247
Taxes on immovable property	31	37	52	58	—	—
Estate, inheritance and gift duties	—	1	1	1	—	—
Taxes on financial and capital transactions	229	304	411	427	387	247
Stamp duties	27	40	61	60	—	—
Financial institutions' transaction taxes	202	261	342	358	378	229
Government borrowing guarantee levies	—	4	9	9	9	18
Taxes on provision of goods and services	18,889	19,881	22,071	23,085	24,571	24,288
General taxes (sales tax)	5,728	6,348	7,548	9,402	10,132	9,365
Excises and levies	9,788	10,202	10,793	9,826	10,413	11,547
Excises on crude oil and LPG	4,019	2,062	2,056	1,188	1,232	1,354
Other Excise Act duties	5,417	7,699	8,128	8,032	8,606	8,965
Agricultural production taxes	353	441	609	606	575	1,228
Taxes on international trade	3,358	3,314	3,711	3,831	4,026	3,377
Customs duties on imports	3,282	3,237	3,632	3,752	3,954	3,319
Customs duties on exports	58	55	55	54	61	54
Agricultural produce export taxes	18	22	24	24	11	3
Taxes on gambling	9	11	13	21	—	—
Taxes on insurance	6	7	7	5	—	—
Taxes on use of goods and performance of activities	198	217	227	208	238	183
Motor vehicle taxes	21	24	30	38	21	18
Franchise taxes	10	14	21	21	—	—
Other taxes on use of goods etc.	167	179	176	149	217	165
Broadcast and TV station licences	69	77	86	108	177	125
Departure tax	50	56	66	38	39	38
Other taxes on use of goods etc. n.e.c.	48	45	25	2	2	2
Fees and fines	342	394	436	654	686	915
Compulsory fees, of which	334	386	425	650	681	889
Aviation en route charges	144	189	188	320	314	409
Light dues and navigation Act charges	36	36	39	40	41	42
Tertiary education charges	—	4	3	8	17	22
Fines	8	9	11	3	6	26

Source: Taxation Revenue, Australia (5506.0).

STATE GOVERNMENT FINANCE

The State government enterprises dealt with in this section include the central government of each State, statutory bodies created by or under State legislation to carry out activities on behalf of the central government and incorporated organisations in which individual State Governments have a controlling interest.

The transactions of many of the State government enterprises are itemised in State Consolidated Revenue Funds or in Trust Funds, so that a satisfactory description of their transactions can be obtained from a detailed analysis and reclassification of the published accounts whose receipts and payments are summarised in the Statement of Treasury balances for each State. The remaining statutory bodies and other publicly owned or controlled organisations maintain accounts entirely, or largely, separate from the public accounts. However there may be transactions between them and State Governments (such as advances and capital contributions, interest and dividends, and votes for running expenses and capital works) which would affect the public accounts. The accounting reports of this group of organisations have to be collected and analysed in order to present a complete statement of the transactions of State government enterprises — or at least methods of analysis need to be adopted which adequately reflect their transactions so that they are in principle, covered by the statistics.

In the figures which follow in this section, all expenditure by State central government enterprises on certain institutions, whether direct (e.g., new building charged to Loan Fund) or indirect by way of current or capital grants to the bodies administering them, has been treated as final expenditure on goods and services by State government; fees and gifts from persons or private businesses to these institutions are not included, nor is the expenditure of the institutions from their own resources. Universities and hospitals are particular examples of organisations for which this practice has been adopted.

Many of these State government enterprises have been granted autonomy by State legislatures to the extent that they are largely financially independent. Some of these are funded from earmarked tax revenues and are vested with independent borrowing powers. A considerable number of others belong to the category of public trading enterprises since they are able to charge for their services so as to cover their costs of operation. These bodies have usually been created to control a specific activity or provide a specific service within a State. Often similar activities are carried out, or services are provided, by central government or local governments in other States. Details of the activities of autonomous or semi-autonomous State government enterprises engaged in such fields as construction and maintenance of roads and bridges, provision of water supply and sewerage services, harbour facilities, transport, electricity and gas, housing and banking may be found in chapters relevant to those subjects and in State *Year Books*.

The total transactions of State Governments are given in the table which follows. Details for individual State Governments may also be found in the respective State *Year Books*.

Outlays, revenue, grants received and deficit

The outlays, revenue, grants received and deficit of State Governments for the six year period ended 1989–90 are given in the following table.

FINANCIAL TRANSACTIONS OF STATE GOVERNMENTS
($ million)

	1984–85	*1985–86*	*1986–87*	*1987–88*	*1988–89*	*1989–90*
Current outlays	32,020	35,753	39,537	43,327	47,423	52,946
General government final consumption expenditure	20,603	22,749	24,965	27,352	29,719	33,079
Requited current transfer payments	6,200	7,162	8,097	9,104	10,303	12,024
Interest payments	6,170	7,127	8,043	9,053	10,227	11,891
To Commonwealth Government on advances	2,227	2,330	2,426	2,479	2,467	2,534
Other	3,943	4,797	5,617	6,574	7,760	9,357
Land rent, royalties and dividends paid	31	34	53	51	77	133
Unrequited current transfer payments	5,216	5,842	6,476	6,872	7,401	7,843
Subsidies paid to enterprises	1,970	2,360	2,658	2,681	2,843	2,630
Personal benefits payments	661	709	805	906	1,009	1,156
Current grants	2,584	2,773	2,989	3,255	3,527	4,006
To non profit institutions	1,761	1,943	2,147	2,329	2,624	3,055
To local governments	823	830	842	925	903	951
Other current transfer payments	2	—	24	29	22	51
Capital outlays	10,706	11,640	12,550	11,259	10,389	12,151
Gross fixed capital expenditure	9,568	10,574	11,245	10,042	9,977	11,356
Expenditure on new fixed assets	9,733	10,744	11,489	10,595	10,786	12,222
Expenditure on second hand fixed assets (net)	–165	–170	–244	–553	–810	–866
Increase in stocks	18	18	232	171	–20	56
Expenditure on land and intangible assets (net)	156	–21	–59	89	–686	–280
Capital transfer payments	616	592	585	738	895	892
Capital grants	616	592	585	738	895	892
To local governments	462	419	446	501	553	591
To other sectors	116	157	128	231	341	298
Other capital transfer payments	37	16	10	6	1	3
Advances paid (net)	348	477	547	218	222	127
To local governments	–56	39	16	6	10	6
To other sectors	405	438	531	212	213	122
Revenue	36,204	40,242	44,121	48,938	53,821	59,148
Taxes, fees and fines	10,486	11,629	13,202	15,749	18,593	20,329
Net operating surpluses of PTEs	2,237	3,810	4,572	5,268	5,529	5,936
Property income and other revenue	2,715	3,705	3,719	4,108	5,473	6,565
Income from public financial enterprises	150	221	246	268	415	359
Interest received	1,464	2,111	2,211	2,360	3,328	4,091
Other property income and other revenue	1,102	1,374	1,263	1,480	1,730	2,115
Grants received	19,766	21,098	22,627	23,813	24,226	26,319
Financing transactions(a)	6,522	7,151	7,966	5,648	3,991	5,948
Net advances received	805	782	541	–51	–116	–488
Net domestic borrowing	3,422	4,783	5,606	5,073	2,636	1,556
Net borrowing from abroad	1,712	995	377	18	934	1,024
Increase in provisions	1,866	1,977	2,125	2,305	3,248	3,261
Other financing transactions(a)	–1,284	–1,386	–684	–1,697	–2,710	594

(a) Calculated as a residual.

Source: Government Finance Statistics, Australia (5512.0).

LOCAL GOVERNMENT FINANCE

In each State of Australia and in the Northern Territory there exists a system of local government whose powers and responsibilities are generally similar and cover such matters as:

- the construction and maintenance of roads, streets and bridges;
- water, sewerage and drainage systems;
- health and sanitary services;
- the supervision of building; and
- the administration of regulations relating to items such as weights and measures, slaughtering, the registration of dogs, etc.

In addition to these obligatory functions, there are also many which may be performed by a local authority either with or without the consent of the ratepayers or the Governor-in-Council. These include provision of transport facilities, electricity, gas and other business undertakings, hospitals, charitable institutions, recreation grounds, parks, swimming pools, libraries, museums, etc.

The system is based on the principle of a grant of specific powers by the State and Northern Territory legislatures to the local government bodies, their autonomy, however, being more or less limited by the provision for general supervision by a department of the central government or by the Governor-in-Council. Otherwise, within the scope of the Acts under which they are constituted or which they have to administer, they are responsible only to the ratepayers. While the broad pattern of local government throughout the States of Australia is similar, the range of activities, election of officers, methods of valuation and rating powers, etc. vary considerably from State to State, and even within States.

FINANCIAL TRANSACTIONS OF LOCAL GOVERNMENTS
($ million)

	1984–85	*1985–86*	*1986–87*	*1987–88*	*1988–89*	*1989–90*
Current outlays	3,098	3,400	3,698	4,012	4,349	4,932
Final consumption expenditure	2,310	2,535	2,743	2,973	3,240	3,678
Requited current transfer payments	672	739	816	888	942	1,091
Unrequited current transfer payments	115	126	139	152	167	163
Capital outlays	2,015	2,224	2,383	2,470	2,661	3,293
Gross fixed capital expenditure	2,019	2,233	2,390	2,516	2,653	3,352
Expenditure on new fixed assets	2,090	2,318	2,455	2,634	2,678	2,823
Expenditure on second-hand fixed assets (net)	–72	–85	–66	–118	–24	529
Increase in stocks	–9	10	9	1	—	—
Expenditure on land and intangible assets (net)	–2	–24	–25	–37	–56	–57
Capital transfer payments	4	3	3	6	76	12
Advances paid (net)	4	1	7	–15	–11	–12
Revenue and grants received	4,803	5,273	5,697	6,124	6,829	7,471
Taxes, fees and fines	2,538	2,781	3,034	3,334	3,678	4,032
Net operating surpluses of public trading enterprises	384	406	451	467	653	691
Property income and other revenue	521	725	823	791	926	1,097
Grants received	1,360	1,360	1,389	1,531	1,573	1,652
From Commonwealth Government	75	112	101	105	117	110
From State Governments	1,285	1,249	1,288	1,426	1,456	1,542
Financing transactions(a)	310	350	384	358	181	754
Net advances received	–56	39	16	6	10	6
Net domestic borrowing	543	448	330	250	233	254
Net borrowing from abroad	—	—	—	—	—	—
Increase in provisions	231	276	244	270	243	245
Other financing transactions(a)	–407	–412	–206	–168	–305	248

(a) Calculated as a residual.

Source: Government Finance Statistics, Australia (5512.0).

The areas over which local government bodies, numbering almost 900, exercise general control, are known in New South Wales as cities, municipalities and shires; in Victoria as cities, towns, boroughs and shires; in Queensland as cities, towns and shires; in South Australia as cities, corporate towns and district council areas; in Western Australia as cities, towns and shires and in Tasmania and the Northern Territory as cities and municipalities. In New South Wales some local authorities in an area have combined to form County Councils which provide services such as electricity and water supply. Within shires there are also some municipal units known as urban areas. Apart from the Australian Capital Territory and the more sparsely populated parts of New South Wales, South Australia and the Northern Territory, practically the whole of Australia comes within local government jurisdiction. For further details *see* State *Year Books*.

FINANCE OF ALL LEVELS OF GOVERNMENT

In the following table the transactions of the Commonwealth, State and local governments have been brought together and consolidated to provide details of the outlays and revenue of the public non-financial sector as a whole.

Summary of outlays, revenue and financing transactions

The outlays, revenue and financing transactions of all governments for the years 1984–85 to 1989–90 are set out in the following table.

FINANCIAL TRANSACTIONS OF COMMONWEALTH, STATE AND LOCAL GOVERNMENTS
($ million)

	1984–85	*1985–86*	*1986–87*	*1987–88*	*1988–89*	*1989–90*
Current outlays	75,416	84,335	92,377	100,012	106,942	117,600
General government final consumption expenditure	35,816	39,763	43,606	46,796	50,443	55,447
Requited current transfer payments	10,863	13,436	15,275	16,523	17,572	19,616
Interest payments	10,832	13,401	15,222	16,472	17,496	19,483
Land, royalties and dividends paid	31	34	53	51	77	133
Unrequited current transfer payments	28,738	31,136	33,497	36,692	38,926	42,537
Subsidies paid to enterprises	3,897	4,295	4,431	4,648	4,749	4,669
Personal benefit payments	21,319	23,052	24,982	27,829	29,421	32,491
Current grants	3,520	3,789	4,083	4,214	4,751	5,366
Other current transfer payments	2	—	—	—	5	10
Capital outlays	15,754	17,823	18,736	16,381	17,180	23,612
Gross fixed capital expenditure	14,394	16,936	18,104	16,461	16,804	20,784
Expenditure on new fixed assets	14,926	17,558	18,712	17,579	18,445	21,507
Expenditure on second-hand fixed assets (net)	–532	–622	–608	–1,118	–1,641	–724
Increase in stocks	180	–254	–371	–223	155	2,807
Expenditure on land and intangible assets (net)	63	–105	–137	–304	–644	–181
Capital transfer payments	589	541	490	631	762	664
Capital grants	552	525	480	624	761	661
Other capital transfer payments	37	16	10	6	1	2
Advances paid (net)	527	705	649	–183	103	–461
Revenue	77,007	87,445	97,590	111,513	124,612	134,309
Taxes, fees and fines	66,272	73,544	83,025	94,480	106,212	115,577
Net operating surpluses of PTEs	5,655	6,538	6,477	9,029	9,893	9,219
Property income and other revenue	5,080	7,363	8,088	8,004	8,506	9,513
Financing transactions(a)	14,163	14,713	13,523	4,880	–490	6,903
Net domestic borrowing	10,569	10,448	10,271	3,114	913	–1,867
Net borrowing from abroad	3,321	1,965	2,124	–1,334	–1,209	–599
Increase in provisions	3,126	3,593	4,070	4,438	5,509	5,691
Other financing transactions(a)	–2,853	–1,293	–2,941	–1,339	–5,703	3,678

(a) Calculated as residual.

Source: Government Finance Statistics, Australia (5512.0).

PUBLIC SECTOR BORROWING

Figures given in this section do not purport to show either 'public debt' or 'net public debt' but are designed to provide details of securities issued on behalf of the Commonwealth Government, the States and the Territories together with some details of the amounts borrowed by State, Territory and local governments with independent borrowing powers.

For a number of reasons, this information cannot be aggregated, without adjustment, to provide a measure of the 'debt' of public sector enterprises. There are forms of debt not evidenced by the issue of securities, such as Commonwealth government advances to the States and Territories for specific capital purposes. Governments themselves maintain significant holdings of their own securities, e.g., the Commonwealth Government, in the National Debt Sinking Fund, the Loan Consolidation and Investment Reserve and in other Trust Funds, holds large investments in securities issued either directly by itself or on behalf of the States and the Territories. Some of the securities issued on behalf of the States and held by the Commonwealth Government represent the proceeds of overseas loans, securities for which were issued directly by the Commonwealth Government, the Australian currency counterpart proceeds of the loans being invested in special loans to finance State and Territories works programs. A number of State and Territory public corporations and local governments also maintain significant investments in government securities (including their own securities). Aggregation of the figures for securities on issue which follow would clearly involve a substantial degree of duplication; the sum of securities on issue therefore cannot be regarded as representing 'net public debt'.

Commonwealth, States and Territories government securities on issue

Under the 1927 Financial Agreement between the Commonwealth Government and the States (as amended to 1976), the Commonwealth Government accepted responsibility for the securities of State Governments then on issue and was empowered to arrange for all future borrowings on behalf of the Commonwealth and the States and to issue Commonwealth government securities for all moneys borrowed.

During 1985–86, an agreement was reached with the Northern Territory Government for the formal allocation of securities relating to the Northern Territory Government's Borrowing Program and associated (nominal) debt allocations.

A National Debt Sinking Fund which is administered by the National Debt Commission, was established by the *National Debt Sinking Fund Act 1923* for the redemption of securities issued on behalf of the Commonwealth Government. Under the terms of the Financial Agreement, the sinking funds existing in respect of the States' debts were also placed under the control of the Commission. The Commonwealth Government is reimbursed by the States and the Territories for interest, exchange, etc. paid on their behalf, and the securities are redeemed from the Fund to which both the Commonwealth, the State Governments and the Territory governments (from 1985–86) make pre-determined contributions. The amounts to be contributed were varied when the *National Debt Sinking Fund Act 1966* repealed all previous legislation on sinking funds relating to securities on issue on behalf of the Commonwealth Government and again in 1976 when the Act was amended to reflect the amendments to the Financial Agreement. In 1976, the Commonwealth assumed the responsibility for over $1,000 million of States' debt existing as at 30 June 1975. As a consequence, the separate States' Sinking Funds were absorbed into the National Debt Sinking Fund, with separate accounts being maintained for the Commonwealth and each State and Territory.

For further information relating to operations of the National Debt Sinking Fund reference should be made to the annual report of the National Debt Commission.

In the tables which follow, details are given of transactions in Commonwealth government securities issued on account of the Commonwealth Government, the States and the Territories. Amounts relating to overseas loans are shown in Australian currency equivalent calculated on the basis of the rates of exchange ruling at 30 June in each year shown. All amounts are at face value.

For figures which permit accurate analysis of the structure and movement of securities issued on behalf of the Commonwealth and States, refer to the *Commonwealth Budget Related Paper No. 1, Government Securities on Issue.*

Net movement in securities on issue

Summary details of the net movement in securities issued for Commonwealth Government purposes and on account of the States during the period 1984–85 to 1989–90, are given in the following group of tables.

NET MOVEMENT IN GOVERNMENT SECURITIES ON ISSUE
($ million)

	1984–85	*1985–86*	*1986–87*	*1987–88*	*1988–89*	*1989–90*
NEW SECURITIES ISSUED						
Securities repayable in Australian currency						
Treasury bonds	9,222.2	6,850.3	5,402.7	2,901.2	2,500.0	2,875.0
Treasury indexed bonds	—	331.8	303.7	202.7	—	—
Australian savings bonds	505.2	487.9	138.7	321.2	—	—
Special bonds	—	—	—	—	—	—
Income equalization deposits	3.7	0.8	0.4	0.7	0.5	36.7
Drought bonds	—	—	—	—	—	—
Overdue securities	—	—	—	—	—	—
Tax-free stock	—	—	—	—	—	—
Debentures	—	—	—	—	—	—
Stock issued to Government savings banks under special agreements(a)	71.1	—	—	—	—	—
Treasury notes	—	—	—	—	—	—
Treasury bills						
Internal	—	—	—	71.7	1,995.7	1,897.1
Public	—	—	—	—	—	—
Other(b)	—	31.0	—	—	—	—
Total	*9,802.2*	*7,701.9*	*5,845.5*	*3,497.5*	*4,496.2*	*4,808.8*
Securities repayable in overseas currencies(c)	1,729.1	2,555.2	2,886.1	—	—	—
Total new securities issued	**11,531.3**	**10,257.0**	**8,731.6**	**3,497.5**	**4,496.2**	**4,808.8**
REDEMPTIONS, REPURCHASES, CANCELLATIONS (d)						
Securities repayable in Australian currency						
Treasury bonds	2,990.2	4,621.6	3,587.2	5,072.8	6,103.6	4,247.2
Treasury indexed bonds	—	0.5	0.6	0.5	0.7	0.6
Australian savings bonds	1,177.3	2,493.0	650.5	285.6	747.7	1,869.8
Special bonds	—	—	—	—	—	—
Income equalization deposits	40.5	27.9	19.1	14.2	5.4	4.4
Drought bonds	—	—	—	—	—	—
Overdue securities	8.8	2.4	1.4	1.1	3.3	1.3
Tax-free stock	0.1	—	—	0.1	0.2	0.1
Debentures	—	—	—	—	—	—
Stock issued to Government savings banks under special agreements(a)	6.2	19.0	31.8	35.3	37.9	41.9
Treasury notes	–821.7	–3,958.8	–1,286.9	290.8	–1,683.5	1,326.0
Treasury bills						
Internal	212.9	–107.3	627.1	—	71.7	1,995.7
Public	—	—	—	—	—	—
Other(b)	—	—	5.4	3.3	9.3	1.3
Total	*3,614.4*	*3,098.5*	*3,636.1*	*5,703.6*	*5,296.5*	*9,488.3*
Securities repayable in overseas currencies(c)	2,697.0	4,217.2	2,533.5	1,566.1	3,181.9	2,647.9
Total redemptions, etc.	**6,311.4**	**7,315.7**	**6,169.6**	**7,269.7**	**8,478.4**	**12,136.2**

For footnotes *see* end of table.

NET MOVEMENT IN GOVERNMENT SECURITIES ON ISSUE—*continued*
($ million)

	1984–85	*1985–86*	*1986–87*	*1987–88*	*1988–89*	*1989–90*
	NET MOVEMENT					
Securities repayable in Australian currency						
Treasury bonds	6,227.4	2,228.7	1,813.1	–2,172.6	–3,604.0	–1,372.7
Treasury indexed bonds	—	331.3	303.1	202.2	–0.7	–0.6
Australian savings bonds	–674.2	–2,005.1	–509.3	34.1	–748.7	–1,876.4
Special bonds	—	—	—	—	—	—
Income equalization deposits	–36.8	–27.1	–18.6	–13.5	–4.9	32.4
Drought bonds	—	—	—	—	—	—
Overdue securities	–2.2	–2.4	–1.4	1.4	–1.9	6.2
Tax-free stock	–0.1	—	—	—	–0.2	–0.1
Debentures	—	—	—	—	—	—
Stock issued to Government savings banks under special agreements(a)	64.9	–19.0	–31.8	–35.3	–37.9	–41.9
Treasury notes	821.7	3,958.8	1,286.9	–290.8	1,683.5	–1,326.0
Treasury bills						
Internal	–212.9	107.3	–627.1	71.7	1,924.0	–98.6
Public	—	—	—	—	—	—
Other(b)	—	30.8	–5.4	–3.3	–9.3	–1.3
Total	*6,187.8*	*4,603.4*	*2,209.4*	*–2,206.1*	*–800.3*	*–4,679.0*
Securities repayable in overseas currencies(c)	–967.9	–1,662.0	352.6	–2,372.7	–3,303.6	–2,434.8
Net movement in securities on issue	**5,219.9**	**2,941.4**	**2,562.0**	**–4,578.8**	**–4,103.9**	**–7,113.8**

(a) Recorded in Commonwealth Government Loan Fund as State domestic raisings. (b) Loans taken over from the previous Canberra Commercial Development Authority. (c) Australian currency equivalent at rates of exchange ruling at 30 June in each of the years shown. (d) Includes conversions from one type of security to another which affect the net movements of individual loan categories but do not affect the overall net movement.

NOTE: For securities repayable in overseas currencies the amounts shown also include an element due to exchange rate variations in Securities on Issue.

Source: Commonwealth Budget Related Paper 1, Government Securities on Issue 1990 (Table 9).

Government securities on issue

The following table provides details of government securities on issue on account of the Commonwealth Government, the States and the Northern Territory, repayable in Australian and in overseas currencies.

GOVERNMENT SECURITIES ON ISSUE: COMMONWEALTH GOVERNMENT AND STATES AND TERRITORIES AS AT 30 JUNE
($ million)

	1985	*1986*	*1987*	*1988*	*1989*	*1990*
For Commonwealth Government purposes						
Repayable in Australian currency						
Treasury bonds	21,288.6	21,554.3	23,083.0	21,472.6	17,913.5	14,397.9
Treasury indexed bonds	—	331.3	634.5	836.7	836.0	835.4
Australian savings bonds	3,914.7	2,033.6	1,682.8	1,784.3	1,425.1	442.7
Special bonds	—	—	—	—	—	—
Income equalization deposit	94.1	67.1	48.4	34.9	30.0	62.4
Drought bonds	—	—	—	—	—	—
Advance loan subscriptions	—	—	—	—	—	—
Overdue securities	6.7	5.5	4.7	4.1	3.3	9.5
Treasury notes	2,894.7	6,853.5	8,140.4	7,849.6	9,533.1	8,207.1

For footnotes *see* end of table.

GOVERNMENT SECURITIES ON ISSUE: COMMONWEALTH GOVERNMENT AND STATES AND TERRITORIES AS AT 30 JUNE — *continued*
($ million)

	1985	*1986*	*1987*	*1988*	*1989*	*1990*
Treasury bills						
Internal	519.8	627.1	—	71.7	1,995.7	1,897.1
Treasury bonds held by LCIR	—	756.5	743.0	450.5	255.1	1,667.8
Public	—	—	—	—	—	—
Other(a)	—	30.7	25.3	22.0	12.6	11.3
Total	*28,718.7*	*32,259.7*	*34,362.0*	*32,526.4*	*32,004.4*	*27,531.2*
Repayable in overseas currencies(b)	9,786.4	13,827.0	15,058.8	12,686.2	9,382.9	6,947.7
Total Commonwealth Government	**38,505.1**	**46,086.7**	**49,420.9**	**45,212.7**	**41,387.3**	**34,478.9**
On account of States						
Repayable in Australian currency						
Treasury bonds	14,364.6	15,569.6	15,867.5	15,597.7	15,748.2	16,478.4
Australian savings bonds	2,059.4	1,934.7	1,776.3	1,708.9	1,319.4	425.4
Special bonds	—	—	—	—	—	—
Tax-free stock	13.5	13.5	13.5	13.4	13.2	13.1
Stock issued to Government savings banks under special agreements	881.3	862.3	830.5	795.3	757.3	715.4
Debentures	—	—	—	—	—	—
Overdue securities	—	1.2	0.6	2.7	1.5	1.0
Total	*17,318.9*	*18,381.3*	*18,488.4*	*18,117.9*	*17,839.6*	*17,633.3*
Repayable in overseas currencies(b)	6.4	5.4	5.3	5.2	4.9	5.3
Total States of which	*17,325.2*	*18,386.7*	*18,493.7*	*18,123.1*	*17,844.5*	*17,638.6*
New South Wales	5,773.5	5,999.2	6,042.6	5,962.7	5,888.0	5,855.1
Victoria	4,385.5	4,550.1	4,587.2	4,525.6	4,473.7	4,448.2
Queensland	2,376.6	2,459.2	2,477.5	2,444.9	2,420.3	2,406.1
South Australia	1,598.2	1,982.9	1,577.3	1,555.7	1,538.1	1,529.2
Western Australia	1,990.6	1,591.5	1,965.4	1,816.3	1,726.7	1,614.1
Tasmania	1,200.7	1,246.3	1,256.4	1,239.7	1,226.6	1,218.2
Northern Territory	—	557.7	587.4	578.2	571.1	567.7
Total Commonwealth Government and States	**55,830.3**	**64,473.4**	**67,914.6**	**63,335.8**	**59,231.8**	**52,117.5**

(a) Includes loans taken over from the previous Canberra Commercial Development Authority. (b) Australian currency equivalent.
Source: Commonwealth Budget Related Paper 1, Government Securities on Issue 1990 (Tables 2, 15).

State and local authorities' borrowings

The borrowings of Commonwealth, State and local authorities first came within the purview of the Loan Council under a 'gentlemen's agreement' originating in 1936. Since 1984–85, the 'gentlemen's agreement' has been replaced by the Global Approach whereby the Loan Council determines a voluntary global limit to apply to all new money borrowings by all public trading enterprises (except statutory marketing boards) and local governments. Details of the Global Approach are contained in *Commonwealth Budget Paper No. 4, Commonwealth Financial Relations with Other Levels of Government.*

The following table shows the aggregate borrowings by the State and local authorities in each of the years 1985–86 to 1989–90.

'GLOBAL' NEW MONEY BORROWINGS BY COMMONWEALTH, STATE AND TERRITORY SEMI-GOVERNMENT AND LOCAL AUTHORITIES(a), 1985–86 TO 1989–90

	NSW	*Vic.*	*Qld*	*WA*	*SA*	*Tas.*	*NT*	*ACT*	*States & Territories*	*Commonwealth(b)*	*Total*
GLOBAL BORROWINGS ($ million)											
1985–86	2,059	2,007	1,539	741	400	230	65	n.a.	7,041	1,178	8,219
1986–87	1,845	1,875	1,387	635	350	217	86	n.a.	6,395	1,402	7,797
1987–88	1,540	(c)1,684	1,161	584	301	182	71	n.a.	5,522	(d)865	6,387
1988–89	1,153	1,552	793	658	258	201	85	n.a.	4,700	2,077	6,777
1989–90	1,134	1,174	624	448	224	185	81	24	3,893	1,449	5,342
GLOBAL BORROWINGS ($ per capita)											
1985–86	375	485	593	516	291	517	428	n.a.	443	74	517
1986–87	331	448	523	429	252	485	554	n.a.	396	87	483
1987–88	272	398	428	384	215	405	455	n.a.	337	53	389
1988–89	201	362	284	419	182	447	544	n.a.	282	124	406
1989–90	196	270	217	278	156	408	518	84	230	86	315
GLOBAL BORROWINGS (percentage of GSP)(e)											
1985–86	2.5	3.0	4.3	3.3	2.1	4.1	2.5	n.a.	3.0	0.5.	3.4
1986–87	2.0	2.6	3.6	2.5	1.7	3.6	2.9	n.a.	2.4	0.5	3.0
1987–88	1.5	2.0	2.7	2.0	1.3	2.7	2.3	n.a.	1.9	0.3	2.2
1988–89	1.0	1.7	1.6	2.0	1.0	2.7	2.5	n.a.	1.4	0.6	2.0
1989–90	0.9	1.2	1.2	1.2	0.8	2.3	2.2	0.3	1.1	0.4	1.4

(a) Includes borrowings by all Commonwealth, State and Territory semi-government and local authorities, government-owned companies and trusts. (b) Includes 'implicit' borrowings associated with the Commonwealth's instalment purchase transactions by Commonwealth Government departments. (c) Vic. borrowings for 1987–88 exceeded the State's global limit for the year by $158 million as the sale of the World Trade Centre, proceeds of which are to be used to repay debt, did not proceed. When the sale proceeds, the State's borrowings are expected to be reduced below its global limit by a similar amount. (d) A Commonwealth authority converted approximately $1.2 billion of financial leases to operating leases during 1987–88. These transactions are not reflected in reported global borrowings by Commonwealth authorities. (e) Commonwealth and Total figures are given as a proportion of GDP.

Source: Commonwealth Budget Paper (1990–91) No. 4 (Table 25), Commonwealth Financial Relations with Other Levels of Government.

Additional details of the transactions of public authorities engaged in particular fields of activity, such as defence, transport and communication, health and welfare, education, etc., may be found in other chapters of this *Year Book.*

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Other Publications

Budget Paper No. 1, Budget Statements

Commonwealth Budget Paper No. 4, Commonwealth Financial Relations with Other Levels of Government

Commonwealth Budget Related Paper No. 1, Government Securities on Issue

FOR MORE INFORMATION

The ABS has a far wider range of information on Australia than that contained in the *Year Book.* Information is available in the form of regular publications, electronic data services, special tables and from investigations of published and unpublished data.

For further information contact ABS Information Services at one of the addresses listed on the page facing the Introduction to the *Year Book.*

Chapter Twenty-seven

National Accounts

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DESCRIPTION OF NATIONAL INCOME AND EXPENDITURE ACCOUNTS

National accounting aims to provide a systematic summary of the transactions taking place in the economy, especially those that relate to the production and use of goods and services, and to transfers of income or capital between sectors of the economy.

This chapter provides a brief description of the conceptual basis of the national accounts system and of the main individual accounts, followed by main tables from the national accounts. For a more detailed treatment of the concepts and structure of the Australian national accounts reference should be made to *Australian National Accounts: Concepts, Sources and Methods* (5216.0).

Definition and relationship of the concepts of product, income and expenditure

The main concepts of product, income and expenditure in the Australian national accounts are defined and expressed in equivalents as follows.

Gross domestic product is the total market value of goods and services produced in Australia within a given period after deducting the cost of goods and services used up in the process of production (intermediate consumption), but before deducting consumption of fixed capital. Thus, gross domestic product, as here defined, is 'at market prices'. It is equivalent to gross national expenditure plus exports of goods and services less imports of goods and services. **Gross farm product** is that part of gross domestic product which derives from production in agriculture and services to agriculture. **Gross non-farm product** arises from production in all other industries.

Gross domestic product at factor cost is that part of the cost of producing the gross domestic product which consists of gross payments to factors of production (labour, land, capital and enterprise). It represents the value added by these factors in the process of production and is equivalent to gross domestic product less net indirect taxes.

Domestic factor incomes is that part of the value added within a given period by factors of production (labour, land, capital and enterprise) which accrues as income to their suppliers after allowing for the consumption of fixed capital. It is equivalent to gross domestic product at factor cost less consumption of fixed capital.

National income is the net income accruing within a given period to Australian residents from their services in supplying factors of production (labour, land, capital and enterprise) in Australia or overseas plus indirect taxes less subsidies. It is equivalent to domestic factor incomes plus indirect taxes less subsidies and net income paid overseas.

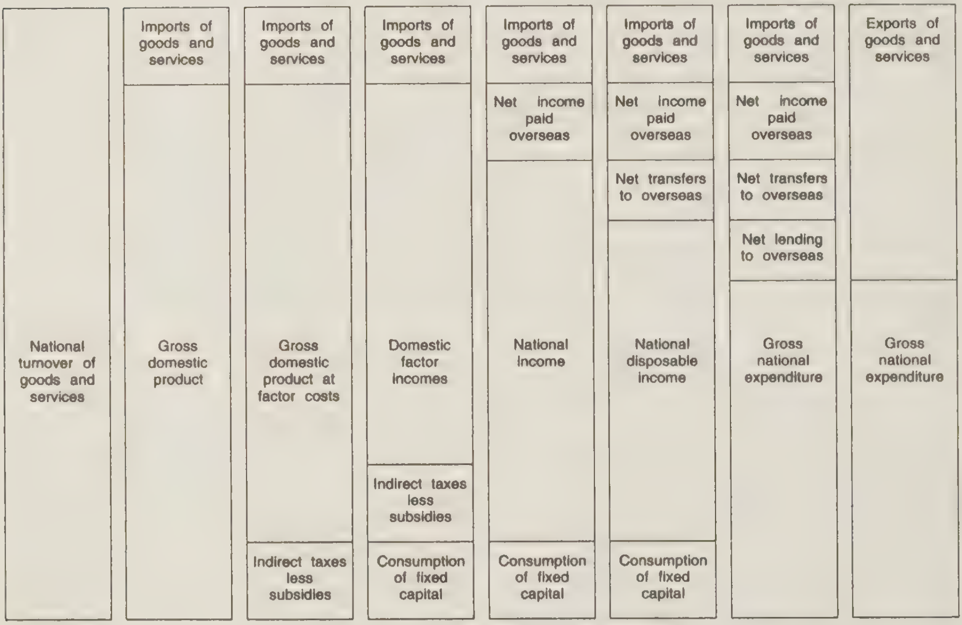
National disposable income is the net income accruing within a given period to Australian residents from their services in supplying factors of production, from net indirect taxes and from net transfers from overseas. It is equivalent to national income less net unrequited transfers to overseas.

Gross national expenditure is the total expenditure within a given period on final goods and services (i.e., excluding goods and services used up during the period in the process of production) bought by Australian residents. It is equivalent to the gross domestic product plus imports of goods and services less exports of goods and services.

Household income is the total income, whether in cash or kind, received by persons normally resident in Australia in return for productive activity (such as wages, salaries and supplements, incomes of unincorporated enterprises, etc.) and transfer incomes (such as cash social security benefits, interest, etc.). It includes the imputed interest of life offices and superannuation funds which is the benefit accruing to policy holders and members from investment income of the funds. It also includes third-party motor vehicle and public risk insurance claims paid to persons in respect of policies taken out by enterprises. However, it excludes any income which might be said to accrue to persons in the form of undistributed company income. It also includes any property income received by non-profit organisations such as private schools, churches and charitable organisations.

The relationships between these aggregates (other than household income) are illustrated in the following diagram. No conclusions concerning the relative magnitude of various aggregates can be drawn from the diagram, especially as some of the boxes may represent negative values.

RELATIONSHIP OF MAIN IDENTITIES

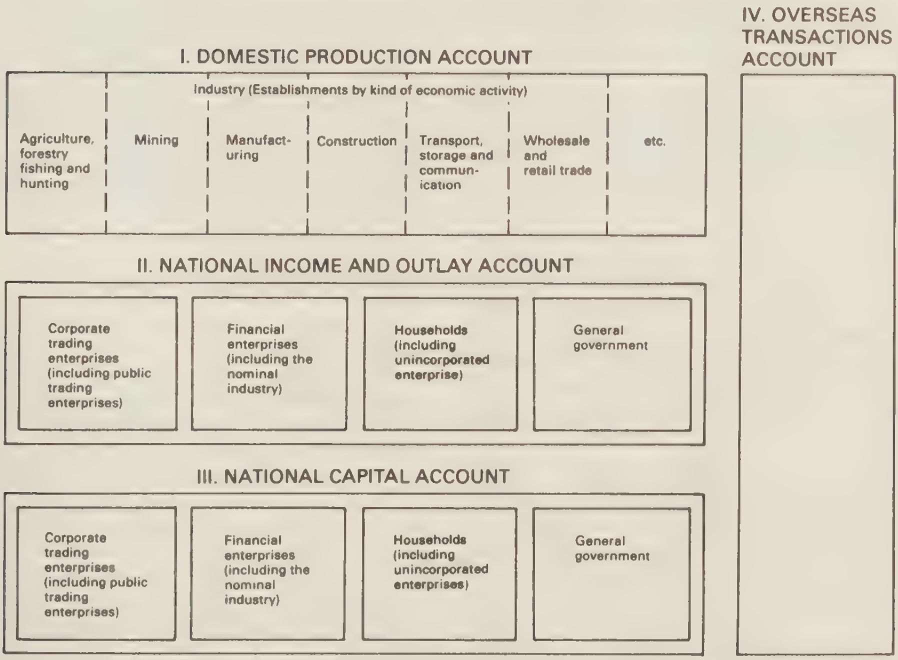

National turnover of goods and services
Imports of goods and services
Gross domestic product
Imports of goods and services
Gross domestic product at factor costs
Indirect taxes less subsidies
Imports of goods and services
Domestic factor incomes
Indirect taxes less subsidies
Consumption of fixed capital
Imports of goods and services
Net income paid overseas
National income
Consumption of fixed capital
Imports of goods and services
Net income paid overseas
Net transfers to overseas
National disposable income
Consumption of fixed capital
Imports of goods and services
Net income paid overseas
Net transfers to overseas
Net lending to overseas
Gross national expenditure
Exports of goods and services
Gross national expenditure

Framework of accounts and sectors

In the Australian national accounts, four internal sectors are distinguished: corporate trading enterprises (including public trading enterprises); financial enterprises (including the nominal industry); households (including their unincorporated enterprises); and general government. All of these internal sectors engage in productive activity, receive and disburse income and accumulate assets. In this publication no accounts are shown for individual internal sectors. The transactions of the internal sectors are summarised in three accounts: a domestic production account, a national income and outlay account and a national capital account. In addition, there is an overseas sector having an account which shows a summary of the transactions into which overseas governments, persons and businesses enter with Australian residents.

The framework of sectors and accounts underlying the Australian national accounts is set out in the following diagram. The large rectangles depict the minimum system of the four consolidated accounts of the nation. The light rectangles represent the accounts for institutional sectors. The subdivision of the domestic production account represents production accounts for establishments classified according to industry. Selected transactions from such production accounts are shown in *Australian National Accounts: National Income and Expenditure* (5204.0). Input–output tables are produced by developing such production accounts in detail.

ARTICULATION OF AUSTRALIAN NATIONAL ACCOUNTS


I. DOMESTIC PRODUCTION ACCOUNT
Industry (Establishments by kind of economic activity)
Agriculture, forestry fishing and hunting
Mining
Manufact-uring
Construction
Transport, storage and commun-ication
Wholesale and retail trade
etc.
II. NATIONAL INCOME AND OUTLAY ACCOUNT
Corporate trading enterprises (including public trading enterprises)
Financial enterprises (including the nominal industry)
Households (including unincorporated enterprise)
General government
III. NATIONAL CAPITAL ACCOUNT
Corporate trading enterprises (including public trading enterprises)
Financial enterprises (including the nominal industry)
Households (including unincorporated enterprises)
General government
IV. OVERSEAS TRANSACTIONS ACCOUNT

Description of the accounts

The **domestic production account** is a consolidation of the production accounts of all producers regardless of sector. The production account is shown as the expenditure on goods and services by final consumers (including exports less imports) and increase in stocks. All intermediate goods and services cancel out as the revenue of one producer is offset as the cost to another. On the income side are shown the incomes accruing to the factors of production (labour and capital), namely wages, salaries and supplements, gross operating surplus and indirect taxes less subsidies. The aggregation of the expenditure side is conceptually equivalent to the aggregation of the income side, both referred to as gross domestic product. However, in practice a statistical discrepancy, reflecting net errors and omissions, is required to balance the account and this is shown by convention on the expenditure side. In input–output tables, the domestic production account is broken up into accounts for separate industries and transactions associated with intermediate usage of goods and services are shown in the production accounts for the separate industries.

The **national income and outlay account** records (on the income side) wages, salaries and supplements, net operating surplus and indirect taxes less subsidies (all from the domestic production account). From this income are deducted net payments of income and miscellaneous transfers to overseas to yield national disposable income. The disbursements side of the account shows this disposable income as being used for final consumption expenditure with the balance being the nation's saving. The national income and outlay account is a consolidation of the sector income and outlay accounts.

The **national capital account** is a consolidation of the sector capital accounts. It shows, on the receipts side, consumption of fixed capital transferred from the domestic production account and savings transferred from the national income and outlay account (or from the sector income and outlay accounts). On the payments side are purchases by all sectors of new buildings and capital equipment, the increase in stocks of all sectors and a balance described as net lending to overseas. This concept of net lending to overseas includes increases (and, negatively, decreases) in Australia's overseas monetary reserves. Net lending to overseas is also the balance on current transactions in the overseas transactions account.

The **overseas transactions account** records all current transactions between Australian and overseas residents. Although this current account represents the overseas sector, the items are named from the Australian viewpoint. The account shows that Australia's current receipts from overseas consist of the value of Australia's exports of goods and services, property and labour income received from overseas and unrequited transfers from overseas. These receipts are used for Australia's imports of goods and services and payments of property and labour income and unrequited transfers to overseas; the balance of current receipts represents net lending to overseas. Positive net lending to overseas corresponds to a surplus on current transactions with overseas, and negative net lending corresponds to a deficit. The transactions in property income shown in this account differ from estimates shown in balance of payments statistics because, in the national accounts, undistributed company income is not imputed to the beneficial owners. Net lending to overseas also differs from the balance on current account shown in balance of payments statistics because of the differing treatments adopted for undistributed company income (which is described as 'reinvested earnings' in balance of payments publications).

Estimates at constant prices

In addition to providing an overview of total economic activity, the national accounts provide information on the relationships between different parts of the economy and also on changes in individual components and their relationships with each other over time. One of the difficulties involved in interpreting the impact of changes from one period to another is that any observed movement is generally a combination of a change in price and a change in quantity. In many cases, interest lies in the changes in physical quantity underlying the dollar value of transactions. Consequently, the development of series adjusted to remove the effect of price changes is an important extension to a national accounting system. Estimates adjusted in this way are said to be at **constant prices**, whereas national accounting aggregates expressed in terms of the actual dollar values used in transactions are said to be at **current prices**.

An estimate of the change over time in the quantity of an individual commodity produced can be made simply by collecting data on the number of units produced, but the only practicable way in which quantities of diverse goods and services produced (or used) can be aggregated is in terms of money values, such as the value of output or the value of materials used. However, changes in money values may reflect nothing more than changes in the underlying prices. Making estimates at constant (or fixed) prices is the best way of having a common unit of measurement, while avoiding the direct effects of changing prices.

The current price value of a transaction may be expressed conceptually as the product of a price and a quantity. The value of the transaction at constant prices may then be thought of as being derived by substituting, for the current price, the corresponding price in the chosen base year. Aggregates at constant prices for each period are obtained by summing constant price values for individual transactions. In effect, quantities of the commodities involved in the transactions are combined using their prices in the base year as weights. Constant price estimates are presented for gross domestic product and its principal components on the following pages.

Reliability and revisions

Estimates of national income and expenditure are necessarily prepared from a very wide range of statistical information, some of which is available quickly and some of which is available only after a delay of several years. Some statistics are closely related to the desired national accounting concepts, but some are not completely satisfactory in various respects, including coverage, concepts and timing. Estimates for the most recent years are therefore subject to revision. This applies particularly to estimates based on income tax statistics — income of companies, non-farm unincorporated enterprises, depreciation and part of private gross fixed capital expenditure — which are subject to substantial revisions for the last couple of years because tabulations of income tax statistics become available progressively one to two years after the end of each financial year.

NATIONAL INCOME AND EXPENDITURE TABLES

The figures shown in the following tables are consistent with data published in *Australian National Accounts: National Income and Expenditure, June Quarter 1991* (5206.0).

NATIONAL INCOME AND OUTLAY ACCOUNT
($ million)

	1988–89	*1989–90*	*1990–91*
Wages, salaries and supplements	165,755	184,921	193,936
Net operating surplus	82,617	87,522	82,280
Domestic factor incomes	*248,372*	*272,443*	*276,216*
Less Net income paid overseas	13,517	17,092	17,330
Indirect taxes	45,595	48,758	50,160
Less Subsidies	4,682	4,332	5,052
National income	*275,768*	*299,777*	*303,994*
Less Net unrequited transfers to overseas	–2,198	–2,346	–2,482
National disposable income	**277,966**	**302,123**	**306,476**
Final consumption expenditure			
Private	194,915	216,381	229,738
Government	56,335	61,545	67,445
Saving	26,716	24,197	9,293
Disposal of income	**277,966**	**302,123**	**306,476**

Source: Australian National Accounts: National Income and Expenditure (5206.0).

DOMESTIC PRODUCTION ACCOUNT
($ million)

	1988–89	*1989–90*	*1990–91*
Final consumption expenditure			
Private	194,915	216,381	229,738
Government	56,335	61,545	67,445
Gross fixed capital expenditure			
Private	66,509	67,198	60,089
Public enterprises	10,324	13,236	13,212
General government	7,664	8,757	9,442
Increase in stocks	3,902	4,930	–1,264
Statistical discrepancy	7,304	7,472	1,830
Gross national expenditure	*346,953*	*379,519*	*380,492*
Exports of goods and services	53,983	59,614	65,061
Less Imports of goods and services	61,102	67,203	65,973
Gross domestic product	**339,834**	**371,930**	**379,580**
Wages, salaries and supplements	165,755	184,921	193,936
Gross operating surplus			
Private trading enterprises			
Corporate	52,233	57,272	56,091
Unincorporated	41,161	44,574	40,039
Dwellings owned by persons	26,024	28,961	31,139
Public trading enterprises	13,708	14,080	15,238
General government	6,183	6,608	6,995
Financial enterprises	2,151	–371	–364
Less Imputed bank service charge	8,294	8,541	8,602
Gross domestic product at factor cost	*298,921*	*327,504*	*334,472*
Indirect taxes less subsidies	40,913	44,426	45,108
Gross domestic product	**339,834**	**371,930**	**379,580**
Less Gross farm product	13,609	14,014	11,810
Gross non-farm product	*326,225*	*357,916*	*367,770*

Source: Australian National Accounts: National Income and Expenditure (5206.0).

NATIONAL CAPITAL ACCOUNT
($ million)

	1988–89	*1989–90*	*1990–91*
Consumption of fixed capital	50,549	55,061	58,256
Saving			
Increase in income tax provisions	1,964	847	–2,102
Undistributed income			
Trading enterprises	1,396	–3,848	–5,234
Financial enterprises	459	–306	–431
Household saving	14,931	18,753	15,397
Extraordinary insurance claims paid	. .	400	. .
General government surplus on current transactions	7,966	8,351	1,663
Finance of gross accumulation	**77,265**	**79,258**	**67,549**
Gross fixed capital expenditure			
Private			
Dwellings	17,501	18,526	16,924
Non-dwelling construction	14,809	16,579	14,490
Equipment	27,093	26,867	23,863
Real estate transfer expenses	7,106	5,226	4,812
Public enterprises	10,324	13,236	13,212
General government	7,664	8,757	9,442
Total gross fixed capital expenditure	*84,497*	*89,191*	*82,743*
Increase in stocks			
Private non-farm	3,583	1,839	–2,478
Farm	250	–255	–24
Public marketing authorities	115	3,088	1,450
Other public authorities	–46	258	–212
Total increase in stocks	*3,902*	*4,930*	*–1,264*
Statistical discrepancy	7,304	7,472	1,830
Net lending to overseas	–18,438	–22,335	–15,760
Gross accumulation	**77,265**	**79,258**	**67,549**

Source: Australian National Accounts: National Income and Expenditure (5206.0).

OVERSEAS TRANSACTIONS ACCOUNT
($ million)

	1988–89	*1989–90*	*1990–91*
Imports of goods and services	61,102	67,203	65,973
Interest, etc., to overseas	12,367	16,027	16,184
Dividends to overseas	3,091	3,975	4,201
Labour income to overseas	279	420	511
Unrequited transfers to overseas			
Personal	855	894	985
General government	1,157	1,278	1,244
Net lending to overseas	–18,438	–22,335	–15,760
Use of current receipts	**60,413**	**67,462**	**73,338**
Exports of goods and services	53,983	59,614	65,061
Interest, etc., from overseas	1,608	2,203	2,398
Dividends from overseas	370	570	522
Labour income from overseas	242	407	496
Extraordinary insurance claims paid	. .	150	150
Unrequited transfers from overseas			
Personal	3,313	3,410	3,589
Income taxes	897	1,108	1,122
Current receipts from overseas	**60,413**	**67,462**	**73,338**

Source: Australian National Accounts: National Income and Expenditure (5206.0).

GROSS DOMESTIC PRODUCT AT AVERAGE 1984–85 PRICES
($ million)

	1988–89	*1989–90*	*1990–91*
Final consumption expenditure			
Private	144,363	150,554	152,023
Government	44,844	46,548	48,395
Gross fixed capital expenditure			
Private			
Dwellings	12,234	11,660	10,333
Non-dwelling construction	10,820	11,271	9,639
Equipment	22,384	21,890	19,576
Real estate transfer expenses	3,379	2,460	2,395
Public enterprises	7,611	9,357	8,998
General government	6,060	6,523	6,830
Increase in stocks			
Private non-farm	2,791	1,340	–1,662
Farm	141	–162	–70
Public marketing authorities	183	1,913	1,022
Other public authorities	–36	185	–143
Statistical discrepancy	5,508	5,308	1,256
Gross national expenditure	*260,282*	*268,847*	*258,592*
Exports of goods and services	43,257	46,433	52,462
Less Imports of goods and services	53,038	55,811	53,818
Gross domestic product	**250,501**	**259,469**	**257,236**
Gross farm product	*8,109*	*8,922*	*9,827*
Gross non-farm product	*242,392*	*250,547*	*247,409*

Source: Australian National Accounts: National Income and Expenditure (5206.0).

MAIN AGGREGATES AT CURRENT PRICES
($ million)

	1	*2*	*3*	*4*	*5*	*6*	*7* *(1 to 6)*	*8*
	Final consumption expenditure		*Private gross fixed capital expenditure*	*Public gross fixed capital expenditure*	*Increase in stocks*	*Statistical discrepancy*	*Gross national expenditure*	*Exports of goods and services*
Year	*Private*	*Government*						
1948–49	3,074	430	538	268	45	–23	4,332	1,142
1949–50	3,541	512	700	385	54	65	5,257	1,302
1950–51	4,320	695	999	555	125	–27	6,667	2,087
1951–52	5,164	940	1,215	742	377	104	8,542	1,481
1952–53	5,475	1,089	1,228	723	–294	–165	8,056	1,850
1953–54	6,013	1,048	1,421	735	109	–125	9,201	1,787
1954–55	6,540	1,127	1,595	787	166	67	10,282	1,702
1955–56	7,023	1,253	1,758	835	229	–50	11,048	1,734
1956–57	7,500	1,324	1,839	846	–45	–125	11,339	2,184
1957–58	7,866	1,380	1,998	886	56	–41	12,145	1,840
1958–59	8,271	1,499	2,072	978	253	–9	13,064	1,850
1959–60	9,084	1,609	2,364	1,078	168	145	14,448	2,144
1960–61	9,634	1,748	2,608	1,110	478	56	15,634	2,165
1961–62	9,936	1,891	2,509	1,317	–219	–123	15,311	2,462
1962–63	10,658	1,991	2,800	1,331	253	–83	16,950	2,483
1963–64	11,527	2,176	3,175	1,480	120	–78	18,400	3,149
1964–65	12,473	2,483	3,687	1,725	561	56	20,985	3,041
1965–66	13,268	2,831	3,957	1,898	109	29	22,092	3,125
1966–67	14,343	3,218	4,150	2,014	360	–38	24,047	3,472
1967–68	15,677	3,723	4,496	2,178	113	–136	26,051	3,559
1968–69	17,070	3,895	5,213	2,321	682	–88	29,093	3,882
1969–70	18,830	4,305	5,663	2,546	440	17	31,801	4,749
1970–71	20,830	4,904	6,397	2,734	441	–173	35,133	5,066
1971–72	23,158	5,596	6,963	3,150	17	–32	38,852	5,673
1972–73	25,987	6,348	7,726	3,270	–270	98	43,159	7,007
1973–74	30,711	7,931	9,125	3,805	1,166	852	53,590	7,880
1974–75	37,420	10,663	9,671	5,467	1,025	695	64,941	10,087
1975–76	44,790	13,199	12,174	6,266	159	–241	76,347	11,197
1976–77	51,171	15,306	14,397	6,612	1,129	–438	88,177	13,382
1977–78	56,933	17,172	15,455	7,194	–430	–67	96,257	14,213
1978–79	64,228	19,020	18,377	7,607	1,343	–1,005	109,570	16,859
1979–80	72,533	21,339	20,366	8,481	845	–1,499	122,065	21,959
1980–81	82,871	24,991	25,854	9,383	502	–869	142,732	22,505
1981–82	94,412	28,526	30,170	11,363	1,555	–2,202	163,824	23,300
1982–83	105,985	32,437	27,985	13,148	–2,442	–1,676	175,437	25,156
1983–84	116,760	35,908	30,173	14,198	1,430	–1,255	197,214	28,595
1984–85	128,236	40,214	35,913	15,210	1,094	142	220,809	34,755
1985–86	143,773	44,722	41,255	18,079	1,464	–1,808	247,485	38,693
1986–87	157,512	48,713	44,839	19,170	–1,394	656	269,496	43,148
1987–88	175,651	52,634	53,747	17,333	–386	2,891	301,870	50,258
1988–89	194,915	56,335	66,509	17,988	3,902	7,304	346,953	53,983
1989–90	216,381	61,545	67,198	21,993	4,930	7,472	379,519	59,614
1990–91	229,738	67,445	60,089	22,654	–1,264	1,830	380,492	65,061

... continued

MAIN AGGREGATES AT CURRENT PRICES — *continued*

($ million)

	9	10	11	12	13	14	15	16
		(7+8–9) (11+13+14)		*Gross operating surplus*				
Year	*Imports of goods and services*	*Gross domestic product*	*Wages salaries and supplements*	*Trading enterprises*	*Total*	*Indirect taxes less subsidies*	*National income*	*Household income*
1948–49	979	4,495	2,205	1,819	1,862	428	3,986	3,787
1949–50	1,260	5,299	2,512	2,230	2,284	503	4,711	4,484
1950–51	1,726	7,028	3,163	3,223	3,294	571	6,316	6,140
1951–52	2,437	7,586	4,003	2,689	2,771	812	6,686	6,285
1952–53	1,312	8,594	4,329	3,376	3,477	788	7,547	7,036
1953–54	1,601	9,387	4,612	3,775	3,883	892	8,279	7,395
1954–55	1,983	10,001	5,050	3,861	3,974	977	8,778	7,929
1955–56	1,953	10,829	5,538	4,123	4,231	1,060	9,477	8,598
1956–57	1,736	11,787	5,858	4,621	4,736	1,193	10,334	9,171
1957–58	1,925	12,060	6,085	4,541	4,682	1,293	10,478	9,187
1958–59	1,960	12,954	6,381	5,088	5,229	1,344	11,256	9,889
1959–60	2,284	14,308	7,085	5,629	5,753	1,470	12,385	10,951
1960–61	2,590	15,209	7,634	5,890	6,013	1,562	13,128	11,756
1961–62	2,188	15,585	7,887	6,057	6,191	1,507	13,362	12,196
1962–63	2,596	16,837	8,361	6,687	6,846	1,630	14,456	13,007
1963–64	2,846	18,703	9,140	7,638	7,807	1,756	16,159	14,489
1964–65	3,447	20,579	10,253	8,210	8,387	1,939	17,802	15,843
1965–66	3,588	21,629	11,086	8,183	8,420	2,123	18,582	16,640
1966–67	3,673	23,846	12,118	9,198	9,475	2,253	20,502	18,448
1967–68	4,115	25,495	13,212	9,527	9,824	2,459	21,841	19,415
1968–69	4,250	28,725	14,627	11,050	11,381	2,717	24,694	21,776
1969–70	4,728	31,822	16,452	12,035	12,382	2,988	27,290	24,046
1970–71	5,083	35,116	18,884	12,569	12,999	3,233	30,091	26,852
1971–72	5,232	39,293	21,077	14,070	14,550	3,666	33,623	30,335
1972–73	5,382	44,784	23,562	16,586	17,116	4,106	38,411	34,814
1973–74	7,883	53,587	28,894	19,133	19,590	5,103	46,309	42,582
1974–75	10,359	64,669	37,160	20,768	21,300	6,209	55,259	52,870
1975–76	10,901	76,643	42,830	24,826	25,790	8,023	65,027	61,871
1976–77	13,924	87,635	48,316	29,333	30,291	9,028	74,111	71,096
1977–78	15,176	95,294	53,066	31,859	32,672	9,556	79,878	78,332
1978–79	17,964	108,465	57,085	39,016	40,292	11,088	91,024	87,766
1979–80	21,091	122,933	63,616	44,960	46,181	13,136	102,676	97,963
1980–81	25,071	140,166	74,054	50,138	51,102	15,010	116,929	112,026
1981–82	28,997	158,127	85,566	54,749	55,481	17,080	130,978	128,599
1982–83	28,967	171,626	94,949	56,197	57,254	19,423	140,309	141,646
1983–84	31,192	194,617	100,402	71,000	71,797	22,418	159,868	157,821
1984–85	39,505	216,059	110,778	79,823	79,479	25,802	176,805	173,987
1985–86	46,087	240,091	122,277	89,812	89,334	28,480	194,753	193,647
1986–87	48,017	264,627	133,935	99,425	98,995	31,697	213,532	213,533
1987–88	52,699	299,429	147,306	114,940	115,119	37,004	242,868	235,883
1988–89	61,102	339,834	165,755	133,126	133,166	40,913	275,768	266,950
1989–90	67,203	371,930	184,921	144,887	142,583	44,426	299,777	297,412
1990–91	65,973	379,580	193,936	142,507	140,536	45,108	303,994	307,218

Source: Australian National Accounts: National Income and Expenditure, (Quarterly 5206.0) and (Annual 5204.0).

GROSS DOMESTIC PRODUCT AT AVERAGE 1984–85 PRICES
($ million)

Year	Final consumption expenditure		Gross fixed capital expenditure			Increase in stocks	Statistical discrepancy	Gross national expenditure	Plus exports of goods and services	Less imports of goods and services	Gross domestic product
				Public							
	Private	Government	Private	Public enterprises	General government						
1948–49	32,875	7,844	6,214	3,361		619	–267	50,646	5,806	6,289	50,163
1949–50	34,870	8,478	7,356	4,435		309	699	56,147	6,151	7,617	54,681
1950–51	37,476	9,535	8,821	5,612		1,005	–252	62,197	5,865	9,087	58,975
1951–52	37,268	10,784	8,808	6,395		2,713	819	66,787	5,337	10,318	61,806
1952–53	36,387	11,287	8,076	5,612		–1,972	–1,187	58,203	6,598	5,954	58,847
1953–54	38,874	10,502	9,112	5,477		744	–868	63,841	6,488	7,777	62,552
1954–55	41,435	10,868	9,837	5,667		1,022	453	69,282	6,647	9,455	66,474
1955–56	42,743	11,127	10,189	5,761		1,359	–321	70,858	7,216	8,948	69,126
1956–57	43,121	11,348	10,296	5,616		–230	–762	69,389	8,136	7,648	69,877
1957–58	44,559	11,539	10,916	5,812		401	–246	72,981	7,266	8,405	71,842
1958–59	45,942	12,439	11,223	6,328		1,466	–53	77,345	8,279	8,650	76,974
1959–60	49,010	11,942	12,804	6,761		793	864	82,174	8,969	10,392	80,751
1960–61	49,903	12,442	13,736	6,787		2,259	305	85,432	9,413	11,717	83,128
1961–62	51,184	13,107	13,029	7,819		–924	–677	83,538	10,678	9,983	84,233
1962–63	54,325	13,607	14,454	7,829		1,257	–444	91,028	10,451	11,726	89,753
1963–64	57,798	14,233	16,142	8,490		650	–400	96,913	12,152	13,007	96,058
1964–65	60,478	15,491	18,077	9,522		2,395	299	106,262	12,121	15,518	102,865
1965–66	62,315	17,150	18,939	10,203		560	154	109,321	12,277	15,908	105,690
1966–67	65,324	18,506	19,257	10,394		1,429	–177	114,733	13,656	16,126	112,263
1967–68	69,093	20,453	20,379	10,854		784	–625	120,938	14,497	18,054	117,381
1968–69	73,167	20,419	22,651	11,148		2,689	–378	129,696	15,566	18,635	126,627
1969–70	77,937	21,353	23,886	11,695		2,099	108	137,078	18,283	20,573	134,788
1970–71	81,184	22,180	25,723	11,862		1,536	–667	141,818	20,072	20,425	141,465
1971–72	84,511	23,060	26,139	12,686		–106	–98	146,192	21,595	19,774	148,013
1972–73	89,225	23,868	26,972	12,366		–1,135	410	151,706	22,040	20,012	153,734
1973–74	94,085	25,579	27,940	12,611		3,447	2,759	166,421	20,686	26,268	160,839
1974–75	96,237	27,677	24,069	7,039	7,488	2,874	1,906	167,290	22,559	27,049	162,800
1975–76	99,484	29,694	25,974	6,575	7,829	160	–463	169,253	23,472	25,398	167,327
1976–77	101,892	30,764	27,523	6,604	6,983	2,340	–775	175,331	25,073	28,201	172,203
1977–78	103,806	31,826	26,983	6,976	6,713	–923	–59	175,322	25,636	27,074	173,884
1978–79	107,458	33,066	29,697	7,197	6,314	2,437	–1,611	184,558	27,224	29,360	182,422
1979–80	110,012	33,694	30,120	7,652	5,825	1,441	–2,228	186,516	29,256	29,233	186,539
1980–81	114,488	35,166	34,451	8,033	5,349	698	–1,149	197,036	27,804	31,938	192,902
1981–82	119,208	35,465	36,506	9,246	5,226	1,771	–2,685	204,737	28,135	35,539	197,333
1982–83	120,716	36,455	30,807	9,560	5,140	–2,578	–1,863	198,237	28,216	32,504	193,949
1983–84	123,816	38,038	31,764	9,457	5,551	1,771	–1,303	209,094	30,606	34,189	205,511
1984–85	128,236	40,214	35,913	9,007	6,203	1,094	142	220,809	34,755	39,505	216,059
1985–86	132,771	42,054	36,958	9,883	6,719	1,261	–1,645	228,001	36,810	40,083	224,728
1986–87	133,791	43,108	36,816	9,527	6,847	–1,088	589	229,590	40,051	38,948	230,693
1987–88	139,222	44,359	41,867	7,750	6,223	–182	2,360	241,599	42,896	42,826	241,669
1988–89	144,363	44,844	48,817	7,611	6,060	3,079	5,508	260,282	43,257	53,038	250,501
1989–90	150,554	46,548	47,281	9,357	6,523	3,276	5,308	268,847	46,433	55,811	259,469
1990–91	152,023	48,395	41,943	8,998	6,830	–853	1,256	258,592	52,462	53,818	257,236

NOTE: Estimates prior to 1974–75 have been derived from estimates valued at the average prices of earlier base years.

Source: Australian National Accounts: National Income and Expenditure, (Quarterly 5206.0) and (Annual 5204.0).

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FOR MORE INFORMATION

The ABS has a far wider range of information on Australia than that contained in the *Year Book.* Information is available in the form of regular publications, electronic data services, special tables and from investigations of published and unpublished data.

For further information contact ABS Information Services at one of the addresses listed on the page facing the Introduction to the *Year Book.*

Chapter Twenty-eight

International Accounts

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BALANCE OF PAYMENTS

The Australian balance of payments is a systematic record of Australia's economic transactions with the rest of the world. Balance of payments statistics are essential for the examination of influences which external factors have on the domestic economy.

Conceptual framework

Balance of payments transactions can be broadly divided into three categories. The first category comprises transactions in goods, services and income between residents of Australia and non-residents. The second category relates to financial transactions involving claims on and liabilities to the rest of the world. The third category, described as unrequited transfers, provides offsetting entries for one sided balance of payments transactions, such as gifts in cash and kind which have no 'quid pro quo'. Two changes not arising from transactions — specifically changes in Australia's official reserve assets arising from the allocation (or cancellation) of Special Drawing Rights (SDRs) by the International Monetary Fund (IMF) and the monetisation (or demonetisation) of gold — are included by convention, to make the accounts more analytically useful.

Traditionally, the first and third of the above categories are combined in what is described as the current account and the second category, together with the two changes not arising from transactions, are shown separately in what is described as the capital account.

The double entry system is used for recording balance of payments transactions. Under this system, credit entries, which have no arithmetic sign, are used to record exports of goods and services, income receivable and financial transactions involving either a reduction in the country's foreign financial assets or an increase in its foreign liabilities. Conversely, debit entries, identified by a minus sign (–), are used to record imports of goods and services, income payable and financial transactions involving either an increase in foreign financial assets or a decrease in foreign liabilities. Transactions in a double entry accounting system are reflected in pairs of equal credit and debit entries. For example, an export transaction for which payment is received through the banking system involves a credit entry for the export and a debit entry for the increase in foreign exchange assets. Any entries that are not automatically paired are matched by special offsetting entries. Such offsetting entries are required for the category of unrequited transfers and for the other changes not arising from transactions referred to in the previous paragraph, namely the allocation (or cancellation) of SDRs and the monetisation (or demonetisation) of gold.

In principle, the net sum of all credit and debit entries is zero. In practice, some transactions are not measured accurately (errors), while others are not measured at all (omissions). Equality between the sum of the credit and debit entries is brought about by the inclusion of a balancing item which reflects net errors and omissions. The balancing item is shown separately outside both current and capital accounts since it reflects the net effects of errors and omissions in both accounts.

In principle, transactions and other changes should be valued in the balance of payments at market prices. However, in practice, transactions are generally valued in the statistics at transaction prices because this basis provides the closest practical approximation to the market price principle.

Transactions and other changes recorded in the balance of payments should, in principle, be recorded at the time of change of ownership (either actual or imputed). For the current account transactions, this is conceived as the time when ownership of goods changes, when services are rendered, when reinvested earnings attributable to direct investors are earned, and when interest and dividends become due for payment. In the case of unrequited transfers, those which are imposed by one party on another, such as taxes and fines, should ideally be recorded at the time they become due for payment without penalty; whereas others should be recorded when the goods, services, etc. to which they are offsets change ownership. For capital account transactions the time of change of ownership is, by convention, normally taken to be the time at which transactions are entered in the books of the transactors.

In practice, the nature of the available data sources is such that the time of recording of transactions will often differ from the time of change of ownership. Where practical, timing adjustments are made for transactions in certain goods to ensure that they are recorded in the time period in which change of ownership occurs.

Classification

In the tables that follow, global estimates of the current and capital accounts of the Australian balance of payments are presented. Current transactions are recorded gross and capital transactions net. This means that for each item in the current account the credit entries are recorded separately from the debit entries. For example, travel credits is shown separately from travel debits. For each item in the capital account, debit and credit transactions are combined to produce a single result for the item which may be either a net credit or a net debit. For example, in a given period, foreign purchases of shares issued by companies in Australia (credit) are netted against foreign sales of similar shares (debit) and the net result is recorded in the appropriate item in the capital account.

The current account records transactions between Australian residents and non-residents in merchandise, other goods and services, income and unrequited transfers. Merchandise includes all movable goods, with a few exceptions, which change ownership from residents to non-residents (exports) and from non-residents to residents (imports). Services covers services rendered by Australian residents to non-residents (credits) and by non-residents to residents (debits), together with transactions in a few types of goods (e.g., goods purchased by travellers). Income covers income earned by Australian residents from non-residents (credits) or by non-residents from residents (debits). It includes investment income (e.g., dividends and interest), other property income (e.g., royalties) and labour income. Unrequited transfers cover the offsetting entries required when resources are provided, without something of economic value being received in return, by non-residents to Australian residents (offsetting credits required) and by residents to non-residents (offsetting debits required). It includes foreign aid and migrants' transfers.

The capital account records transactions in Australia's foreign financial assets and liabilities, including the creation and extinction of claims on or by the rest of the world and a few specified other changes. Capital transactions are grouped into two broad institutional sectors called official and non-official. The official sector is split into general government and Reserve Bank of Australia. Public business enterprises are excluded from this sector and included in the non-official sector. The non-official sector covers transactions of all other resident entities including banks, non-bank financial enterprises and trading enterprises, and households.

CURRENT ACCOUNT
($ million)

	1985–86	*1986–87*	*1987–88*	*1988–89*	*1989–90*	*1990–91*
Current transactions						
Goods and services						
Merchandise(a)						
Exports f.o.b.	32,208	35,423	40,541	43,073	47,815	51,822
Imports f.o.b.	–35,676	–37,159	–40,386	–47,032	–50,991	–49,257
Balance on merchandise trade	*–3,468*	*–1,736*	*155*	*–3,959*	*–3,176*	*2,565*
Services						
Credits						
Shipment	381	462	537	554	535	588
Other transportation	2,480	2,765	3,142	3,209	3,446	3,933
Travel	1,921	2,546	3,565	4,330	4,463	4,949
Other services	1,703	1,983	2,516	2,866	3,415	3,822
Total services credits	*6,485*	*7,756*	*9,760*	*10,959*	*11,859*	*13,292*
Debits						
Shipment	–2,827	–2,756	–2,856	–3,176	–3,269	–3,051
Other transportation	–2,197	–2,114	–2,510	–2,912	–3,420	–3,439
Travel	–2,760	–3,108	–3,712	–4,321	–5,086	–5,240
Other services	–2,627	–2,880	–3,235	–3,661	–4,437	–4,899
Total services debits	*–10,411*	*–10,858*	*–12,313*	*–14,070*	*–16,212*	*–16,629*
Net services	*–3,926*	*–3,102*	*–2,553*	*–3,111*	*–4,353*	*–3,337*
Balance on goods and services	*–7,394*	*–4,838*	*–2,398*	*–7,070*	*–7,529*	*–772*
Income						
Credits						
Property income						
Reinvested earnings	681	1,176	2,163	2,029	1,591	1,472
Other	1,443	1,741	1,725	1,978	2,773	2,933
Labour and other income	177	159	171	239	554	644
Total income credits	*2,301*	*3,076*	*4,059*	*4,246*	*4,918*	*5,049*
Debits						
Property income						
Reinvested earnings	–936	–1,244	–2,428	–2,131	–1,536	–1,420
Other	–9,129	–10,349	–11,928	–15,458	–20,002	–20,424
Labour and other income	–164	–179	–210	–279	–420	–511
Total income debits	*–10,229*	*–11,772*	*–14,566*	*–17,868*	*–21,958*	*–22,355*
Net income	*–7,928*	*–8,696*	*–10,507*	*–13,622*	*–17,040*	*–17,306*
Unrequited transfers						
Credits	2,517	3,017	3,545	4,210	4,518	4,728
Debits	–1,808	–1,804	–1,881	–2,012	–2,172	–2,242
Net unrequited transfers	*709*	*1,213*	*1,664*	*2,198*	*2,346*	*2,486*
Balance on current account	**–14,613**	**–12,321**	**–11,241**	**–18,494**	**–22,223**	**–15,592**

(a) Balance of payments basis.

Source: Balance of Payments, Australia, July 1991 (5301.0) and Balance of Payments, Australia, June Quarter 1991 (5302.0).

CAPITAL ACCOUNT AND BALANCING ITEM(a)
($ million)

	1985–86	*1986–87*	*1987–88*	*1988–89*	*1989–90*	*1990–91*
Net capital transactions						
Official						
General government						
Foreign investment in Australia						
Borrowing	5,809	6,452	4,358	3,221	2,734	–1,837
Other	30	–12	–71	–188	–74	–5
Total	*5,839*	*6,440*	*4,287*	*3,033*	*2,660*	*–1,842*
Australian investment abroad	–213	–574	415	–359	–86	13
Total general government	*5,626*	*5,866*	*4,702*	*2,674*	*2,574*	*–1,829*
Reserve Bank						
Foreign investment in Australia	–16	18	–8	—	24	–22
Australian investment abroad						
Reserve assets	2,140	–3,394	–3,924	–873	–2,156	–1,446
Other	—	—	—	—	—	—
Total	*2,140*	*–3,394*	*–3,924*	*–873*	*–2,156*	*–1,446*
Total Reserve Bank	*2,124*	*–3,376*	*–3,932*	*–873*	*–2,132*	*–1,468*
Total official	*7,750*	*2,490*	*770*	*1,801*	*442*	*–3,297*
Non official						
Foreign investment in Australia						
Direct investment						
Reinvestment of earnings	936	1,244	2,428	2,131	1,536	1,420
Other	2,670	3,499	5,727	9,556	5,144	7,178
Portfolio and other investment	10,565	11,640	15,318	16,487	11,116	9,511
Total foreign investment in Australia	*14,171*	*16,383*	*23,473*	*28,174*	*17,796*	*18,109*
Australian investment abroad						
Direct investment						
Reinvestment of earnings	–681	–1,176	–2,163	–2,029	–1,591	–1,472
Other	–2,079	–3,438	–8,347	–4,169	–1,220	904
Portfolio and other investment	–4,029	–4,524	–2,483	–5,219	–892	–918
Total Australian investment abroad	*–6,789*	*–9,138*	*–12,993*	*–11,417*	*–3,703*	*–1,486*
Total non-official	*7,382*	*7,245*	*10,480*	*16,757*	*14,093*	*16,623*
Balance on capital account	**15,132**	**9,735**	**11,250**	**18,558**	**14,535**	**13,326**
Balancing item(a)	–519	2,586	–9	–64	7,688	2,266

(a) In principle, the net sum of all credit and debit entries is zero. In practice, some transactions are not measured accurately (errors), while others are not measured at all (omissions). Equality between the sum of the credit and debit entries is brought about by the inclusion of a *balancing item* which reflects net errors and omissions.

Source: Balance of Payments, Australia, July 1991 (5301.0) and Balance of Payments, Australia, June Quarter 1991 (5302.0).

OFFICIAL RESERVE ASSETS AND AVERAGE EXCHANGE RATES

	Financial year ending 30 June					
	1986	*1987*	*1988*	*1989*	*1990*	*1991*
			— $ million —			
Levels of official reserve assets(a)						
Foreign exchange						
United States dollars	3,403	6,571	8,015	6,813	8,464	8,537
Other	4,803	5,266	6,926	8,924	9,076	10,925
Special drawing rights	478	471	420	398	379	360
Reserve position in IMF	326	335	312	414	411	421
Gold	4,014	4,951	4,509	3,861	3,541	3,804
Total	**13,024**	**17,594**	**20,182**	**20,410**	**21,871**	**24,047**
			— Units of foreign currency per $A —			
Exchange rates						
End of year(b)						
United States dollar	0.6672	0.7203	0.7940	0.7553	0.7890	0.7681
United Kingdom pound	0.4414	0.4494	0.4612	0.4882	0.4536	0.4712
West German mark	1.485	1.319	1.441	1.480	1.318	1.382
Japanese yen	110.96	105.79	105.17	108.79	120.41	106.19
Special drawing right	0.5781	0.5634	0.6059	0.6051	0.5967	0.5825
Period average(c)						
United States dollar	0.6999	0.6636	0.7290	0.8160	0.7697	0.7853
United Kingdom pound	0.4866	0.4352	0.4167	0.4755	0.4733	0.4240
West German mark	1.753	1.280	1.262	1.512	1.367	1.248
Japanese yen	140.48	101.37	97.58	106.95	113.27	107.60
Special drawing right	0.6387	0.5345	0.5448	0.6244	0.5958	0.5656

(a) SDRs, and Australia's reserve position in the IMF are based on the IMF basket valuation for the SDR, which is published in terms of US dollars crossed with the representative rate for the Australian dollar in terms of the US dollar. Gold is valued at the average London gold price for the month, converted to Australian dollars at the market rate of exchange applying on the last trading day of the month. The foreign currency value of all other overseas assets has been based, where applicable, on market quotations. Accrued interest is normally taken into account. Conversion to Australian dollar equivalent is based on end of period market rates of exchange. (b) These exchange rates relate to the last trading day of the reference period. (c) These exchange rates are derived by averaging figures for each trading day.

Source: Reserve Bank of Australia for official reserve assets.

International trade in services

The current account of Australia's balance of payments statistics include trade in services with the rest of the world.

In 1989–90, services accounted for 17 per cent ($11,799 million) of current account credits and 18 per cent ($16,212 million) of current account debits.

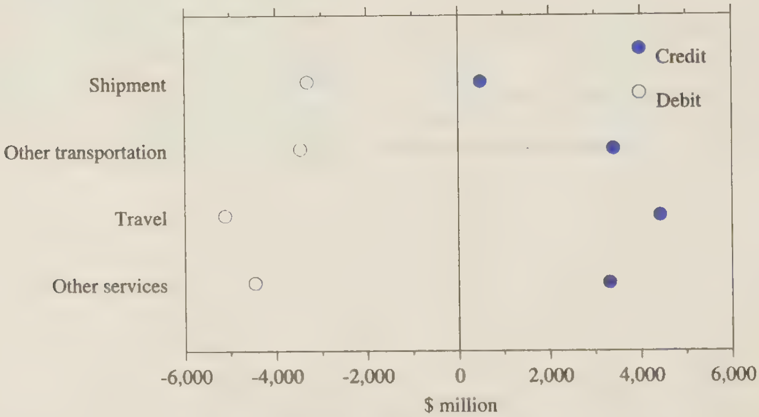
There are four main categories of such services: shipment, comprising freight and insurance services; other transportation, comprising passenger (such as fares) and port (such as stevedoring and bunkering) services; travel, comprising expenditure by students and other travellers on goods and services; and 'other' services, comprising all other services not included elsewhere.

SERVICES TRADE: SUMMARY
($ million)

	Credits	*Debits*	*Balance*
1989–90			
Shipment			
Freight	523	–3,245	–2,722
Insurance	12	–24	–12
Total	*535*	*–3,269*	*–2,734*
Other transportation			
Passenger services	1,504	–2,218	–714
Port services etc.	1,942	–1,202	740
Total	*3,446*	*–3,420*	*26*
Travel			
Students' expenditure	829	–247	582
Other	3,634	–4,839	–1,205
Total	*4,463*	*–5,086*	*–623*
Other services			
Official	274	–385	–111
Non-official			
Financial services	216	–193	23
Insurance services	24	–360	–336
Telecommunication services	463	–568	–104
Agency and advertising services provided to international transportation operators	519	–404	115
Computer and information services	192	–184	8
Professional services	313	–414	–101
Technical services	131	–309	–178
Management fees between related corporations	178	–387	–209
Other(a)	1,045	–1,233	–188
Total other services	*3,355*	*–4,437*	*–1,082*
Total	**11,799**	**–16,212**	**–4,413**
1988–89	10,910	–14,070	–3,160
1987–88	9,717	–12,313	–2,596

(a) Calculated as a residual.
Source: International Trade in Services, Australia, 1989–90 (5354.0).

SERVICES BY COMPONENT, 1989-90



Source: International Trade in Services, Australia, 1989-90 (5354.0).

Values of exports and imports of goods and services (balance of payments basis) at constant prices

The following tables show annual values of Australian exports and imports of goods and services at current and constant (average 1984–85) prices. These estimates are compiled quarterly on a balance of payments basis within the framework outlined below. *See* Relationship to balance of payments section under Foreign Trade later in this chapter regarding the difference between the balance of payments and the foreign trade bases for exports and imports.

The current price value of a transaction may be expressed conceptually as the product of a price and quantity. The value of the transaction at constant prices may then be thought of as being derived by substituting, for the current price, the corresponding price in the chosen base year. There are, however, many transactions recorded in statistics of overseas trade for which it is not possible to apply such an approach. In such cases it is necessary to make assumptions and approximations (e.g., revaluing by means of the price index which is considered to be most closely related to the commodity involved). The published estimates at constant prices should be viewed in this light.

Prior to 1988, merchandise exports and imports of goods f.o.b. (free-on-board) were compiled using the Australian Export Commodity Classification (AECC) and the Australian Import Commodity Classification (AICC) based on the second revision of the United Nations Standard International Trade Classification (SITC rev. 2). From 1 January 1988, exports and imports of goods f.o.b. have been compiled using the Harmonized Commodity Description and Coding System (HS) based on the third revision of the SITC (SITC rev. 3). This means that commodity data prior to 1988 are not strictly comparable with later data; however, the lack of comparability for the aggregates presented in the tables below is thought to be minor.

The published components of merchandise exports and imports of goods f.o.b. are classified according to the various SITC rev. 3 divisions and/or sections.

Services

Services covers services rendered by Australian residents to non-residents (credits) and by non-residents to residents (debits), together with transactions in a few types of goods (e.g., goods purchased by travellers). For main categories of services, *see* section International trade services in this chapter.

Exogenous imports comprise a group of imported goods which it has been found useful to identify separately in economic analysis because the transactions in these goods are erratic, subject to government arrangements or significantly affected by factors other than the general level of economic activity in Australia. Exogenous imports include fuels, ships, aircraft and certain other large items of equipment acquired by selected public and private sector trading enterprises, defence goods and certain other government goods.

Endogenous imports comprise imports of all goods other than those regarded as exogenous.

Endogenous imports are classified into three classes — consumption goods, capital goods and other goods — according to the United Nations' classification by broad economic categories (BEC). Other goods covers the BEC class intermediate goods and the residual BEC category goods not elsewhere specified.

EXPORTS OF GOODS AND SERVICES (BALANCE OF PAYMENTS BASIS) AT CURRENT AND AVERAGE 1984–85 PRICES
($ million)

	1985–86	*1986–87*	*1987–88*	*1988–89*	*1989–90*	*1990–91*
AT CURRENT PRICES						
Rural exports f.o.b.						
Meat and meat preparations	1,699	2,244	2,555	2,249	2,913	3,176
Cereal grains and cereal preparations	3,880	2,778	2,202	2,738	3,201	2,400
Sugar, sugar preparations and honey	646	708	698	891	1,037	876
Wool and sheepskins	3,061	3,888	5,811	5,975	3,865	2,797
Other (dairy produce, fruit, etc.)	2,968	3,521	3,976	3,979	4,289	4,621
Total rural	*12,254*	*13,139*	*15,242*	*15,832*	*15,305*	*13,870*
Non-rural exports f.o.b.						
Metal ores and minerals	5,003	4,956	5,455	6,582	7,560	8,051
Mineral fuels						
Coal, coke and briquettes	5,240	5,456	4,850	4,737	5,906	6,486
Other	2,299	1,515	1,779	1,258	2,077	3,561
Metals						
Gold	787	1,552	2,563	2,731	3,114	3,918
Other metals	2,527	2,899	3,749	4,675	4,672	4,735
Machinery	1,139	1,595	1,835	1,870	2,452	3,090
Transport equipment	474	1,034	957	886	1,143	1,902
Manufactures n.e.c.	1,859	2,363	2,941	3,277	4,030	4,386
Other non-rural	626	914	1,170	1,225	1,556	1,794
Total non-rural	*19,954*	*22,284*	*25,299*	*27,241*	*32,510*	*37,923*
Total exports f.o.b.	32,208	35,423	40,541	43,073	47,815	51,793
Exports of services	6,485	7,725	9,717	10,910	11,799	13,268
Total exports of goods and services	**38,693**	**43,148**	**50,258**	**53,983**	**59,614**	**65,061**
AT AVERAGE 1984–85 PRICES						
Rural exports f.o.b.						
Meat and meat preparations	1,639	1,930	2,130	1,866	2,240	2,533
Cereal grains and cereal preparations	3,957	3,462	2,752	2,542	2,676	2,850
Sugar, sugar preparations and honey	640	653	641	675	657	591
Wool and sheepskins	2,823	3,253	3,204	2,916	2,215	2,175
Other (dairy produce, fruit, etc.)	2,891	3,170	3,126	3,140	3,210	3,520
Total rural	*11,950*	*12,468*	*11,853*	*11,139*	*10,998*	*11,669*
Non-rural exports f.o.b.						
Metal ores and minerals	4,819	4,733	5,219	5,311	5,224	5,741
Mineral fuels						
Coal, coke and briquettes	4,886	5,232	5,543	5,319	5,671	6,135
Other	2,275	2,347	2,542	2,250	3,235	4,105
Metals						
Gold	664	1,032	1,561	2,060	2,335	3,110
Other metals	2,475	2,543	2,662	2,856	3,178	3,546
Machinery	1,063	1,458	1,648	1,664	2,233	2,856
Transport equipment	466	934	878	839	1,021	1,669
Manufactures n.e.c.	1,718	1,954	2,187	2,391	2,895	3,192
Other non-rural	594	811	1,007	943	1,071	1,291
Total non-rural	*18,960*	*21,044*	*23,247*	*23,633*	*26,863*	*31,645*
Total exports f.o.b.	30,910	33,512	35,100	34,772	37,861	43,314
Exports of services	5,900	6,539	7,796	8,485	8,572	9,148
Total exports of goods and services	**36,810**	**40,051**	**42,896**	**43,257**	**46,433**	**52,462**

Source: Balance of Payments, Australia, June Quarter 1991 (5302.0).

IMPORTS OF GOODS AND SERVICES (BALANCE OF PAYMENTS BASIS) AT CURRENT AND AVERAGE 1984–85 PRICES
($ million)

	1985–86	*1986–87*	*1987–88*	*1988–89*	*1989–90*	*1990–91*
			AT CURRENT PRICES			
Food, beverages and tobacco	1,705	1,936	2,013	2,200	2,285	2,322
Fuels	1,909	1,751	2,036	2,014	2,520	3,146
Chemicals (incl. plastics)	3,003	3,466	4,280	4,973	5,203	5,128
Textile, fabrics, etc.	1,669	1,830	1,931	2,002	1,946	1,829
Metals and metal manufactures	1,695	1,845	2,205	2,625	2,764	2,484
Machinery	10,827	11,360	12,230	13,793	15,522	14,223
Transport equipment	5,415	4,502	4,152	6,849	7,759	7,685
Manufactures n.e.c.	6,892	7,700	8,563	9,766	10,308	10,108
Other imports	2,561	2,769	2,976	2,810	2,684	2,325
Total imports f.o.b.	*35,676*	*37,159*	*40,386*	*47,032*	*50,991*	*49,250*
of which—						
Exogenous	4,539	4,459	3,829	4,186	4,770	5,647
Endogenous						
Consumption goods	8,123	8,296	9,348	11,432	12,125	12,209
Capital goods	8,146	8,031	8,578	10,583	11,743	10,587
Other goods	14,868	16,373	18,631	20,831	22,353	20,807
Total endogenous	*31,137*	*32,700*	*36,557*	*42,846*	*46,221*	*43,603*
Imports of services	10,411	10,858	12,313	14,070	16,212	16,723
Total imports of goods and services	**46,087**	**48,017**	**52,699**	**61,102**	**67,203**	**65,973**
			AT AVERAGE 1984–85 PRICES			
Food, beverages and tobacco	1,490	1,531	1,633	1,943	1,991	2,026
Fuels	2,071	2,755	2,936	3,621	3,602	3,450
Chemicals (incl. plastics)	2,609	2,767	3,282	3,779	4,016	3,979
Textiles, fabrics, etc.	1,442	1,429	1,453	1,572	1,455	1,388
Metals and metal manufactures	1,454	1,426	1,603	1,813	1,830	1,659
Machinery	9,527	9,280	10,837	13,828	15,299	14,851
Transport equipment	4,404	3,169	2,806	5,152	5,626	5,601
Manufactures n.e.c.	5,888	5,754	6,310	7,416	7,443	7,186
Other imports	2,251	2,176	2,281	2,190	2,012	1,817
Total imports f.o.b.	*31,136*	*30,287*	*33,141*	*41,314*	*43,274*	*41,957*
of which—						
Exogenous	4,470	5,061	4,599	5,731	5,621	5,584
Endogenous						
Consumption goods	6,888	6,210	6,991	8,993	9,265	9,431
Capital goods	7,035	6,356	7,292	10,042	11,000	10,381
Other goods	12,749	12,659	14,259	16,548	17,388	16,561
Total endogenous	*26,666*	*25,226*	*28,542*	*35,583*	*37,653*	*36,373*
Imports of services	8,947	8,661	9,685	11,724	12,537	11,861
Total imports of goods and services	**40,083**	**38,948**	**42,826**	**53,038**	**55,811**	**53,818**

Source: Balance of Payments, Australia, June Quarter 1991 (5302.0).

FOREIGN TRADE

The foreign trade statistics presented in this chapter are compiled in broad agreement with the United Nations' recommendations for the compilation of international trade statistics.

Source of data

Merchandise trade statistics are compiled by the Australian Bureau of Statistics from information submitted by exporters and importers or their agents to the Australian Customs Service (ACS).

Scope

Merchandise trade covers all movable goods which add to (imports) or subtract from (exports) Australia's stock of material resources.

Excluded are:

- direct transit trade, i.e., goods being transhipped or moved through Australia for purposes of transport only;
- ships and aircraft moving through Australia while engaged in the transport of passengers or goods between Australia and other countries; and
- non-merchandise trade, consisting primarily of goods moving on a temporary basis (e.g., mobile equipment, goods under repair and goods for exhibition) and passengers' effects.

Coverage

The United Nations recommendations for the compilation of merchandise trade statistics recognise that the basic sources used by most compiling countries — the customs records — will not be able to capture certain transactions. In Australia the following types of goods, which fall within the scope of merchandise trade, are excluded because customs entries are not required:

- bunkers, aviation fuel and stores supplied abroad to Australian ships and aircraft;
- parcels post exports and imports of small value;
- certain materials under inter-governmental agreements for defence and similar projects;
- from 1 July 1986, export consignments where the value of the goods in each transaction is less than $500. Prior to that date, the value level was $250; and
- import entries lodged on informal clearance documents (ICDs) for values not exceeding $250. In addition, from 21 October 1985 onwards, ICDs for postal articles valued between $250 and $1,000 are excluded.

Valuation

For exports, the *point of valuation* adopted is free-on-board (fob) at the Australian port of shipment while the *basis of valuation* is transactions values or the actual price at which the goods are sold.

For imports, from 1 July 1989 the *point of valuation* is generally the point of containerisation, or fob at the customs frontier of the exporting country or the port of loading, whichever comes first. For prior periods a number of points of valuation, depending upon contractual arrangements for delivery, have applied. The *basis of valuation* is the customs value, which for transactions between independent buyers and sellers will generally be the price actually payable. Where traders are not independent i.e., they may be related or affiliated in some way, an appropriate customs value may be determined.

Commodity classifications

Commodity export and import statistics are presented according to the codes and descriptions of the third revision of the United Nations' Standard International Trade Classification (SITC Rev3).

Exports and imports of merchandise trade are also classified according to the nineteen categories of the United Nations' classification Broad Economic Categories (BEC). The BEC classifies foreign trade statistics for the purposes of general economic analysis according to the main end use of the commodities traded.

Relationship to balance of payments statistics

The basic source of balance of payments data on merchandise exports and imports is 'foreign trade statistics'. However, because of conceptual differences, various coverage, timing and (imports only) valuation adjustments are necessary before foreign trade statistics can be put on a balance of payments basis. Therefore, the merchandise exports and imports statistics, and the excess of exports (+) or imports (–), shown in this section will differ from those shown in the balance of payments section of this chapter. For more information on the relationship between merchandise trade measures in foreign trade and balance of payments statistics *see* either Appendix A of *Foreign Trade, Australia: Merchandise Exports and Imports* (5410.0) or chapter 9 of *Balance of Payments, Australia: Concepts, Sources and Methods* (5331.0).

Merchandise trade statistics

In the year ended June 1991 merchandise exports rose six per cent to reach $52,455 million. Merchandise imports fell five per cent to $48,919 million. The fall in imports was the first year on year decline since 1982–83. Exports exceeded imports by $3,536 million, a turnaround of $5,604 million from the deficit recorded in the previous financial year.

MERCHANDISE TRADE
($ million)

	Exports	*Imports(a)*	*Excess of exports or imports*
1985–86	32,793	34,691	–1,898
1986–87	35,806	36,988	–1,182
1987–88	41,078	40,597	481
1988–89	43,529	47,040	–3,511
1989–90	49,265	51,333	–2,068
1990–91	52,455	48,919	3,536

(a) Due to changes in Customs' valuation, import data for periods prior to 1 July 1989 are not fully comprable with data for later periods. *See* the note 'Changes in the Valuation of Imports' in the explanatory notes of the 1989–90 issue of *Foreign Trade, Australia: Merchandise Exports and Imports* (5410.0).

Source: Foreign Trade, Australia: Merchandise Exports, June 1991 (5432.0) and Foreign Trade, Australia: Merchandise Imports, June 1991 (5433.0).

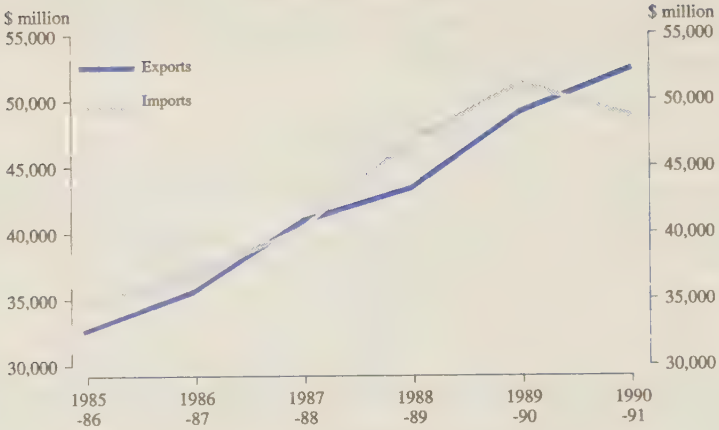
MERCHANDISE EXPORTS AND IMPORTS BY STATE
($ million)

	Exports			*Imports(b)*		
State(a)	*1988–89*	*1989–90*	*1990–91*	*1988–89*	*1989–90*	*1990–91*
New South Wales	10,908	12,313	12,228	20,871	23,385	22,379
Victoria	8,576	8,582	8,804	15,951	16,790	14,907
Queensland	8,966	10,461	10,685	3,788	4,258	4,909
South Australia	2,451	2,849	2,953	1,862	2,050	2,194
Western Australia	8,853	10,262	12,481	3,569	3,985	3,635
Tasmania	1,360	1,457	1,344	349	353	299
Northern Territory	939	1,337	1,838	626	483	567
Australian Capital Territory	3	9	9	25	29	28
State not available	133	102	154	. .	. .	. .
Re-exports	1,339	1,891	1,958	. .	. .	. .
Total	**43,529**	**49,265**	**52,455**	**47,040**	**51,333**	**48,919**

(a) For exports, State refers to State of final production and for imports, the State for which the imports entry was lodged with the Australian Customs Service. (b) Due to changes in Customs' valuation, import data for periods prior to 1 July 1989 are not fully comparable with data for later periods. *See* the note 'Changes in the Valuation of Imports' in the explanatory notes of the 1989–90 issue of *Foreign Trade, Australia: Merchandise Exports and Imports* (5410.0).

Source: Foreign Trade, Australia: Merchandise Exports, June 1991 (5432.0) and Foreign Trade, Australia: Merchandise Imports, June 1991 (5433.0).

EXPORTS AND IMPORTS



Source: Foreign Trade, Australia: Merchandise Exports, June 1991 (5432.0) and Foreign Trade, Australia: Merchandise Imports, June 1991 (5433.0).

Merchandise exports and imports by country

The main changes in 1990–91 from the previous year in the pattern of trade with other countries which contributed to the $5,604 million turnaround were:

- an 88 per cent rise in the surplus recorded with Japan (up $2,616 million), which resulted from both rising exports (up 12%) and falling imports (down 10%). Most of the increase in exports to Japan was in crude oil, natural gas and gold;
- a 41 per cent rise in the surplus with ASEAN (up $837 million) reflecting strong export growth, particularly in petroleum and petroleum products and gold;
- a 40 per cent rise in the surplus with the Republic of Korea (up $570 million), with exports of wheat, coal, gold and other metals accounting for most of the increase; and
- a 19 per cent fall in the deficit recorded with the USA (down $1,305 million), resulting from both rising exports (up 8%) and falling imports (down 7%).

EXPORTS AND IMPORTS, BY COUNTRY
($ million)

	1988–89		*1989–90*		*1990–91*	
Country	*Exports*	*Imports(a)*	*Exports*	*Imports*	*Exports*	*Imports*
Association of South-East Asian Nations (ASEAN)						
Brunei	11	32	14	24	16	41
Indonesia	734	419	1,036	441	1,435	784
Malaysia	741	687	923	658	991	732
Philippines	411	165	489	150	436	129
Singapore	1,473	1,090	1,960	1,213	2,775	1,271
Thailand	473	420	568	479	669	505
Total ASEAN	*3,843*	*2,814*	*4,990*	*2,965*	*6,322*	*3,461*

For footnotes *see* end of table.

EXPORTS AND IMPORTS, BY COUNTRY — *continued*
($ million)

	1988–89		*1989–90*		*1990–91*	
Country	*Exports*	*Imports(a)*	*Exports*	*Imports*	*Exports*	*Imports*
European Community (EC)						
Belgium–Luxembourg	367	403	498	434	447	380
Denmark	70	202	79	251	88	207
France	975	1,267	875	1,166	784	1,233
Germany	1,113	2,970	1,259	3,443	1,055	3,115
Greece	64	77	48	68	32	45
Ireland	8	171	16	186	16	199
Italy	1,019	1,374	1,048	1,635	920	1,390
Netherlands	661	601	1,059	520	989	550
Portugal	51	58	48	61	34	52
Spain	195	209	227	219	197	204
United Kingdom	1,524	3,454	1,735	3,356	1,779	3,302
Total EC	*6,048*	*10,785*	*6,890*	*11,336*	*6,340*	*10,678*
Algeria	35	—	39	12	70	—
American Samoa	19	3	17	1	26	2
Argentina	96	104	159	171	126	70
Austria	10	178	21	189	27	203
Bahrain	123	27	150	16	165	11
Bangladesh	70	23	84	24	76	25
Brazil	118	430	125	352	129	316
Canada	709	1,067	729	1,228	819	902
Chile	23	43	32	65	50	40
China	1,231	1,026	1,195	1,241	1,319	1,503
Czechoslovakia	75	52	60	47	24	35
Egypt(b)	425	3	474	6	233	2
Fiji	155	99	205	93	233	90
Finland	98	352	86	311	82	303
French Polynesia	68	—	69	—	86	—
Hong Kong	1,889	888	1,326	847	1,568	741
India	547	247	590	278	672	260
Iran	330	10	535	11	476	10
Iraq	320	—	421	—	20	—
Israel	62	138	82	150	43	145
Japan	11,855	9,757	12,847	9,872	14,443	8,854
Korea, Republic of	2,184	1,262	2,685	1,254	3,256	1,255
Kuwait	78	90	74	123	7	42
Mexico	54	81	115	94	64	94
Nauru	17	85	19	58	25	17
New Caledonia	76	2	89	9	77	16
New Zealand	2,221	1,970	2,610	2,173	2,566	2,150
Norway(b)	18	177	35	226	25	148
Oman	55	15	71	38	77	37
Pakistan	150	79	213	82	160	76
Papua New Guinea	782	105	842	235	767	584
Poland	183	31	109	39	26	31
Puerto Rico	6	114	20	110	8	215
Qatar	22	48	16	27	27	13
Romania	100	53	170	23	49	6
Saudi Arabia	250	458	293	676	215	844
South Africa	152	98	119	119	171	99
Sweden	143	841	145	896	123	767
Switzerland	349	497	738	567	1,261	665
Taiwan	1,567	1,920	1,831	1,946	1,953	1,752
Turkey	80	32	88	55	162	32

For footnotes *see* end of table.

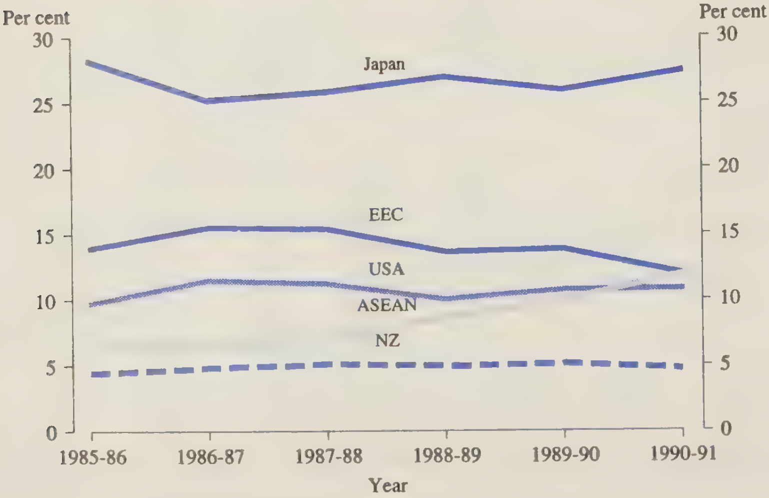
EXPORTS AND IMPORTS, BY COUNTRY — *continued*
($ million)

	1988–89		1989–90		1990–91	
Country	*Exports*	*Imports(a)*	*Exports*	*Imports*	*Exports*	*Imports*
United Arab Emirates	247	396	282	452	288	419
United States of America	4,448	10,130	5,380	12,373	5,790	11,478
U.S.S.R.	1,011	54	682	37	377	52
Venezuela	27	3	67	13	27	21
Vietnam	23	21	84	17	24	18
Yugoslavia	130	57	102	59	62	50
Zimbabwe	7	9	12	9	17	14
Destination or Origin Unknown	1	19	15	21	77	21
Ships' Stores	426	. .	493	. .	679	. .
No country details(c)	133	. .	102	. .	84	. .
Other countries(b)	440	274	637	293	663	312
Re-imports	. .	79	. .	97	. .	42
Total	**43,529**	**47,040**	**49,265**	**51,333**	**52,455**	**48,919**

(a) Due to changes in Customs' valuation, import data for periods prior to 1 July 1989 are not fully comparable with data for later periods. *See* the note 'Changes in the Valuation of Imports' in the explanatory notes of the 1989–90 issue of *Foreign Trade, Australia: Merchandise Exports and Imports* (5410.0). (b) Excludes exports of alumina. *See* category 'No country details' at end of this table. (c) Exports of alumina to Egypt, Iceland and Norway that are not separately available.

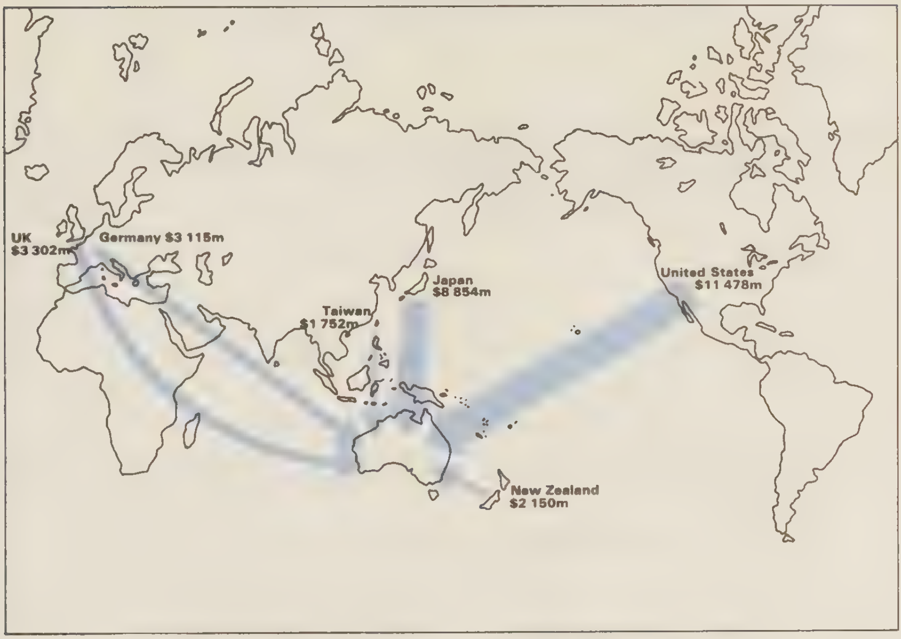
Source: Foreign Trade, Australia: Merchandise Exports, June 1991 (5432.0) and Foreign Trade, Australia: Merchandise Imports, June 1991 (5433.0).

PERCENTAGE OF AUSTRALIAN EXPORTS GOING TO SELECTED COUNTRIES AND COUNTRY GROUPS

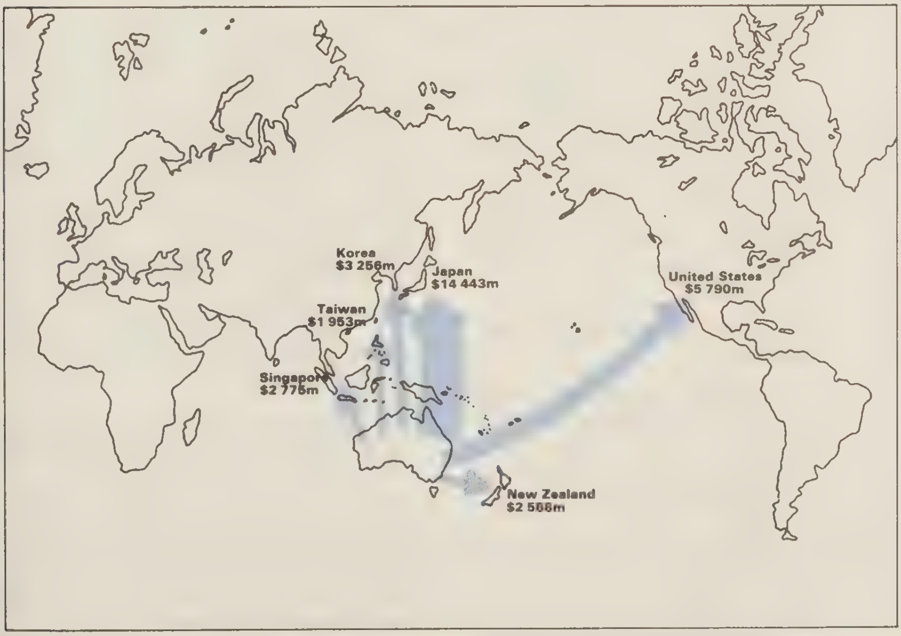


Source: Foreign Trade, Australia: Merchandise Exports, June 1991 (5432.0).

AUSTRALIAN IMPORTS: MAJOR SOURCE COUNTRIES, 1990–91

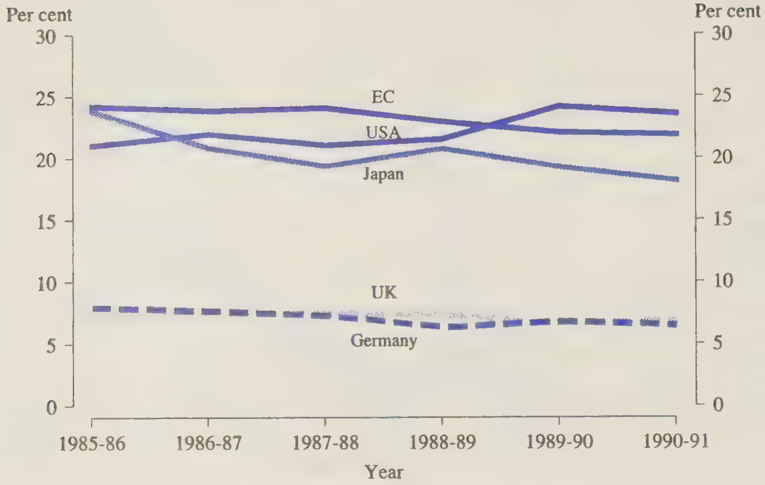

UK
$3 302m
Germany $3 115m
Japan
$8 854m
Taiwan
$1 752m
United States
$11 478m
New Zealand
$2 150m

AUSTRALIAN EXPORTS: MAJOR DESTINATIONS, 1990–91


Korea
$3 256m
Japan
$14 443m
Taiwan
$1 953m
Singapore
$2 775m
United States
$5 790m
New Zealand
$2 508m

Source: Foreign Trade, Australia: Merchandise Exports, June 1991 (5432.0) and Foreign Trade, Australia: Merchandise Imports, June 1991 (5433.0).

PERCENTAGE OF AUSTRALIAN IMPORTS COMING FROM SELECTED COUNTRIES AND COUNTRY GROUPS



Source: Foreign Trade, Australia: Merchandise Imports, June 1991 (5433.0).

Merchandise exports and imports by commodity

For the year ended June 1991 exports were $52,455 million, up $3,190 million (6%) on the previous financial year. The most significant contributors to the rise were: petroleum and petroleum products, up $1,201 million (60%) to $3,210 million; and gold, up $861 million (30%) to $3,700 million. The export commodities recording the largest falls were textile fibres and their wastes, down $1,246 million (26%) to $3,599 million; and cereals and cereal preparations, down $916 (25%) to $2,615 million.

Australia's major exports for 1990–91 and their principal markets were:

- coal, at $6,389 million — 12 per cent of total exports: Japan (52%), Republic of Korea (9%) and Taiwan (6%);
- gold, at $3,700 million — 7 per cent of total exports: Singapore (28%), Japan (26%) and Switzerland (19%);
- alumina, at $2,733 million — 5 per cent of total exports: no country details available;
- meat of bovine animals, at $2,597 million — 5 per cent of total exports: USA (42%), Japan (36%) and Republic of Korea (7%).
- wool, at $2,107 million — 4 per cent of total exports: Italy (19%), Japan (19%) and France (10%);

Imports in 1990–91 were $48,919 million, down $2,414 million (5%) from 1989–90. The most significant contributors to the decrease were: machinery and transport equipment, down $1,754 million (7%); manufactured goods classified chiefly by material, down $821 million (10%); inedible crude materials, except fuels, down $319 million, (21%); and chemical and related products, down $121 million (2%). Mineral fuels and lubricants, up $589 million (23%), was the only major commodity group to record a significant increase.

Australia's major imports for 1990–91 and their principal sources were:

- aircraft and associated equipment, at $2,717 million — 5 per cent of total imports: the USA (78%) and the UK (8%);
- passenger motor vehicles, at $2,217 million — 4 per cent of total imports: Japan (81%), Germany (9%), and Republic of Korea (3%);
- automatic data processing machines, at $1,873 million — 3 per cent of total imports: the USA (43%), Japan (20%), Taiwan (12%) and Singapore (8%);

- petroleum (crude), at $1,502 million — 3 per cent of total imports: Indonesia (24%), United Arab Emirates (22%), and Saudi Arabia (18%).

EXPORTS OF MAJOR COMMODITIES, 1990–91

Commodity description	*$ million*	*Per cent*
Aircraft and associated equipment; spacecraft (incl. launch vehicles; and parts thereof) (792)	409	1
Alumina (aluminium oxide) (285.20)	2,733	5
Aluminium (684)	2,146	4
Barley, unmilled (043)	353	1
Cars and other road vehicles (incl. air-cushion vehicles) (78)	840	2
Cheese and curd (024)	208	—
Coal, whether or not pulverised but not agglomerated (321)	6,389	12
Copper ores and concentrates (283.10)	197	—
Copper and copper alloys, unwrought (excl. master alloys) (682.11,12,14)	534	1
Cotton (other than linters), not carded or combed (263.10)	675	1
Crustaceans molluscs and aquatic invertebrates (except canned or bottled) (036)	538	1
Fruit and nuts, fresh, dried or preserved and fruit preparations (incl. fruit juices) (057—059)	382	1
Gas, natural and manufactured (34)	1,002	2
Gold, non-monetary (excl. gold ores and concentrates) (971)	3,700	7
Hides and skins, bovine and equine, raw (211.11–13,20)	300	1
Iron and steel (67)	986	2
Iron ore concentrates and agglomerates (excl. roasted iron pyrites) (281.50,60)	2,560	5
Lead and lead alloys, unwrought (685.11,12)	275	1
Machinery specialised for particular industries (72)	507	1
Meat of bovine animals, fresh, chilled or frozen (011.11–22)	2,597	5
Meat of sheep and goats, fresh, chilled or frozen (012.11–13)	378	1
Milk and cream and milk products other than butter or cheese (022)	445	1
Nickel and nickel alloys, unwrought (683.11,12)	281	1
Nickel oxide sinters (284.22)	261	—
Office machines and automatic data processing machines (75)	702	1
Ores and concentrates of molybdenum, noibium, titanium, etc. (287.81–85)(a)	430	1
Petroleum oils and oils obtained from bituminous minerals, crude (333)	1,786	3
Petroleum products (334,335)	1,424	3
Photographic and cinematographic supplies (882)	169	—
Plastics in primary and non-primary form (57,58)	238	—
Power generating machinery and equipment (71)	552	1
Rice (042)	213	—
Sheep and goats, live (001.21,22)	54	—
Skins, sheep and lamb, with wool on, raw (211.60)	106	—
Sorghum, unmilled (045.30)	26	—
Sugar, beet or cane, raw, in solid form (061.11,12)	879	2
Uranium and thorium ores and concentrates (286.10,20)	378	1
Wheat (incl. spelt) and meslin unmilled (041)	1,783	3
Wood, in chips or particles (246.11,15)	428	1
Wool, greasy (incl. fleece-washed wool) (268.11,19)	2,107	4
Wool, other, not carded or combed (268.21,29)	618	1
Zinc and zinc alloys, unwrought (686.11,12)	363	1
Zinc ores and concentrates (287.50)	656	1
Total major commodities(a)	*41,611*	*79*
Total exports	**52,455**	**100**

(a) Excludes commodities subject to a 'No Commodity Details' restriction. For further information *see* the confidentiality appendices in ABS Foreign Trade publications.

Source: Foreign Trade, Australia: Merchandise Exports, June 1991 (5432.0) and Foreign Trade, Australia: Merchandise Imports, June 1991 (5433.0).

IMPORTS OF MAJOR COMMODITIES, 1990–91

Commodity description	*$ million*	*Per cent*
Aircraft and associated equipment; spacecraft (incl. launch vehicles; and parts thereof) (792)	2,717	6
Articles of apparel and clothing accessories(84)	954	2
Automatic data processing machines and units thereof (752)	1,873	4
Baby carriages, toys, games and sporting goods (894)	473	1
Chemical materials and products, n.e.s. (59)(a)	626	1
Civil engineering and contractors' plant and equipment (723)	601	1
Clay and refractory construction materials and mineral manufactures, n.e.s. (662,663)	341	1
Coffee and coffee substitutes (071)	123	—
Electrical apparatus for switching or protecting electrical circuits (772)	528	1
Electrical machinery and apparatus n.e.s. (778)	720	1
Fish, crustaceans, molluscs, and aquatic invertebrates, and preparations thereof (03)	447	1
Glass, glassware and pottery (664,665,666)	367	1
Household type, electrical and non-electrical equipment n.e.s. (775)	427	1
Inorganic chemicals(a) (52)	657	1
Internal combustion piston engines, and parts thereof n.e.s. (713)	585	1
Iron and steel (67)	884	2
Machinery and equipment specialised for particular industries and parts thereof (728)	619	1
Manufactures of base metals n.e.s. (699)	431	1
Measuring, checking, analysing and controlling instruments and apparatus n.e.s. (874)	870	2
Medical and pharmaceutical products (54)	942	2
Motor vehicles for the transport of goods (782.10)	1,019	2
Non-electrical parts and accessories of machinery n.e.s. (749)	119	—
Organic chemicals(a) (51)	1,007	2
Paper, paperboard and articles of paper pulp, of paper or of paperboard(64)(a)	1,156	2
Parts and accessories of motor vehicles and tractors, track-laying and wheeled (784)	871	2
Parts and accessories for office and automatic data processing machines (759)	1,230	3
Passenger motor vehicles (other than public transport type)	2,217	5
Petroleum oils and oils obtained from bituminous minerals, crude (333)	1,502	3
Petroleum oils and oils obtained from bituminous minerals (other than crude) (334)	1,415	3
Photographic and cinematographic supplies (882)(a)	324	1
Plastics in primary and non-primary forms (57,58)(a)	1,034	2
Printed matter (892)	740	2
Printing and bookbinding machinery, and parts thereof (726)	285	1
Pumps, centrifuges, filtering or purifying apparatus and parts thereof (743)	626	1
Rubber tyres, interchangeable tyre treads, tyre flaps and inner tubes for wheels of all kinds (625)	400	1
Ships, boats (including hovercraft) and floating structures (793)	416	1
Telecommunication equipment n.e.s. and parts n.e.s. and accessories (764)	990	2
Television and radio broadcast receivers (761,762)	406	1
Textile yarn (651)	481	1
Tools for use in the hand or in machines (695)	279	1
Tractors, track-laying and wheeled (722)	153	—
Wood, sawn or chipped lengthwise, sliced or peeled (248.20,40)	375	1
Woven cotton fabrics (excl. narrow or special fabrics) (652)	256	1
Woven fabrics of man-made textile material (excl. narrow or special fabrics) (653)	352	1
Total major commodities(a)	*32,834*	*67*
Total imports	**48,919**	**100**

(a) Excludes commodities subject to a 'No Commodity Details' restriction. For further information *see* the confidentiality appendices in ABS Foreign Trade publications.

Source: Foreign Trade, Australia: Merchandise Exports, June 1991 (5432.0) and Foreign Trade, Australia: Merchandise Imports, June 1991 (5433.0).

EXPORTS AND IMPORTS BY COMMODITY
($ million)

Commodity description (Section and division of the SITC Rev3)	*1988–89*		*1989–90*		*1990–91*	
	Exports	*Imports (a)*	*Exports*	*Imports*	*Exports*	*Imports*
0 FOOD AND LIVE ANIMALS						
00 Live animals other than fish, crustaceans, molluscs and aquatic invertebrates	302	156	199	139	165	73
01 Meat and meat preparations	2,252	30	2,919	22	3,185	36
02 Dairy products and birds' eggs	568	91	733	106	759	124
03 Fish (not marine mammals) crustaceans molluscs and aquatic invertebrates and preparations thereof	596	437	682	425	732	447
04 Cereals and cereal preparations	2,821	72	3,531	94	2,615	105
05 Vegetables and fruit	529	375	529	415	636	383
06 Sugars, sugar preparations and honey	921	44	1,120	51	938	61
07 Coffee, tea, cocoa, spices and manufactures thereof	65	353	70	331	88	309
08 Feeding stuff for animals (excl. unmilled cereals)	267	73	265	69	260	65
09 Miscellaneous edible products and preparations	95	202	98	246	117	313
Total Section 0	*8,416*	*1,833*	*10,145*	*1,898*	*9,494*	*1,916*
1 BEVERAGES AND TOBACCO						
11 Beverages	228	273	225	304	283	292
12 Tobacco and tobacco manufactures	20	92	18	92	20	103
Total Section 1	*249*	*366*	*243*	*396*	*303*	*395*
2 CRUDE MATERIALS, INEDIBLE, EXCEPT FUELS						
21 Hides, skins and furskins, raw	498	12	575	12	428	10
22 Oil seeds and oleaginous fruits	70	50	51	27	46	58
23 Crude rubber (incl. synthetic and reclaimed)	16	114	8	93	9	77
24 Cork and wood	424	561	394	518	449	436
25 Pulp and waste paper	37	224	25	243	26	147
26 Textile fibres and their wastes (not manufactured into yarn or fabric)	6,261	179	4,845	149	3,599	132
27 Crude fertilisers (excl. those of Division 56) and crude minerals (excl. coal petroleum and precious stones)	234	281	223	230	270	118
28 Metalliferous ores and metal scrap(b)	6,349	78	7,344	146	7,785	132
29 Crude animal and vegetable materials, n.e.s.	124	107	144	120	160	110
Total Section 2(b)	*14,012*	*1,607*	*13,608*	*1,539*	*12,772*	*1,220*
3 MINERAL FUELS, LUBRICANTS AND RELATED MATERIALS						
32 Coal, coke and briquettes	4,738	11	5,910	18	6,493	5
33 Petroleum, petroleum products and related materials	1,464	1,999	2,009	2,505	3,210	3,116
34 Gas, natural and manufactured	164	4	490	16	1,002	8
Total Section 3	*6,365*	*2,014*	*8,409*	*2,540*	*10,705*	*3,129*
4 ANIMAL AND VEGETABLE OILS, FATS AND WAXES						
41 Animal oils and fats	105	3	109	2	112	2
42 Fixed vegetable fats and oils, crude, refined or fractionated(b)(c)	11	102	2	110	4	115
43 Fats and oils (processed), waxes and inedible mixtures or preparations, of animal or vegetable origin, n.e.s.	11	13	10	12	16	13
Total Section 4(b)(c)	*126*	*117*	*122*	*124*	*132*	*129*

For footnotes *see* end of table.

EXPORTS AND IMPORTS BY COMMODITY — *continued*
($ million)

Commodity description (Section and division of the SITC Rev3)	*1988–89*		*1989–90*		*1990–91*	
	Exports	*Imports (a)*	*Exports*	*Imports*	*Exports*	*Imports*
5 CHEMICAL AND RELATED PRODUCTS, N.E.S.						
51 Organic chemicals(b)	98	1,160	86	1,071	119	1,007
52 Inorganic chemicals(b)	91	682	157	767	199	657
53 Dyeing, tanning and colouring materials	141	217	259	233	199	233
54 Medicinal and pharmaceutical products(c)	233	694	266	820	316	942
55 Essential oils and resinoids and perfume materials; toilet, polishing and cleansing preparations	95	292	86	331	125	339
56 Fertilisers (excl. crude)	7	214	11	252	16	276
57 Plastics in primary forms	148	717	140	650	159	595
58 Plastics in non-primary forms(b)	60	444	64	484	79	439
59 Chemical materials and products, n.e.s.(b)	195	564	178	627	178	625
Total Section 5(b)(c)	*1,067*	*4,985*	*1,248*	*5,235*	*1,390*	*5,114*
6 MANUFACTURED GOODS CLASSIFIED CHIEFLY BY MATERIAL						
61 Leather, leather manufactures, and dressed furskins, n.e.s.	147	151	168	137	179	121
62 Rubber manufactures, n.e.s.(b)	66	682	67	750	65	661
63 Cork and wood manufactures (excl. furniture)(c)	11	233	22	227	36	214
64 Paper, paperboard and articles of paper pulp, of paper or of paperboard(b)(c)	123	1,296	162	1,297	187	1,155
65 Textile yarn, fabrics, made-up articles, n.e.s., and related products(b)	152	1,999	177	1,955	211	1,820
66 Non-metallic mineral manufactures, n.e.s.(b)(c)	338	965	468	1,069	502	958
67 Iron and steel	498	1,078	748	1,039	986	884
68 Non-ferrous metals	4,177	357	3,923	396	3,745	385
69 Manufactures of metals, n.e.s.	328	1,192	368	1,349	461	1,200
Total Section 6(b)(c)	*5,841*	*7,954*	*6,103*	*8,219*	*6,372*	*7,398*
7 MACHINERY AND TRANSPORT EQUIPMENT						
71 Power generating machinery and equipment	311	1,126	419	1,384	552	1,264
72 Machinery specialised for particular industries	341	2,359	423	2,756	507	2,148
73 Metal working machinery	38	376	63	392	87	317
74 General industrial machinery and equipment, n.e.s. and machine parts, n.e.s.	336	2,518	378	2,977	474	2,714
75 Office machines and automatic data processing machines	399	3,327	569	3,557	702	3,376
76 Telecommunications and sound recording and reproducing apparatus and equipment	163	1,717	237	1,805	317	1,737
77 Electrical machinery, apparatus, appliances, parts (incl. non-elec. counterparts of electrical domestic equipment	288	2,358	364	2,718	456	2,521
78 Road vehicles (incl. air-cushion vehicles)	405	4,807	576	5,062	840	4,459
79 Transport equipment (excl. road vehicles)	439	2,035	603	2,801	614	3,163
Total Section 7	*2,721*	*20,623*	*3,631*	*23,452*	*4,551*	*21,698*

For footnotes *see* end of table.

EXPORTS AND IMPORTS BY COMMODITY — *continued*
($ million)

Commodity description (Section and division of the SITC Rev3)	*1988–89*		*1989–90*		*1990–91*	
	Exports	*Imports (a)*	*Exports*	*Imports*	*Exports*	*Imports*
8 MISCELLANEOUS MANUFACTURED ARTICLES						
81 Prefabricated buildings; sanitary, plumbing, heating and lighting fixtures and fittings, n.e.s.	27	125	31	145	42	139
82 Furniture parts thereof; bedding mattresses, mattress supports, cushions and similar stuffed furnishings	37	285	41	338	38	290
83 Travel goods, handbags and similar containers	5	190	5	210	5	215
84 Articles of apparel and clothing accessories	64	759	112	908	128	954
85 Footwear	16	338	25	339	23	384
87 Professional, scientific and controlling instruments and apparatus, n.e.s.	197	1,065	253	1,144	276	1,200
88 Photographic apparatus, equipment and supplies and optical goods, n.e.s.; watches and clocks(b)	263	782	232	783	256	778
89 Miscellaneous manufactured articles, n.e.s.	439	2,883	663	3,015	566	2,994
Total Section 8(b)	*1,048*	*6,429*	*1,362*	*6,880*	*1,336*	*6,954*
9 COMMODITIES AND TRANSACTIONS NOT CLASSIFIED ELSEWHERE IN THE SITC						
93 Special transactions and commodities not classified according to kind	151	752	185	599	170	214
95 Gold coin whether or not legal tender, and other coin being legal tender	243	20	275	35	218	20
96 Coin (excl. gold coin) not being legal tender	1	—	2	8	1	2
97 Gold non-monetary (excl. gold ores and concentrates)	2,496	151	2,839	285	3,700	623
98 Combined confidential items of trade(d)	793	188	1,093	123	1,311	108
Total section 9(d)	*3,684*	*1,112*	*4,394*	*1,050*	*5,400*	*966*
Total	**43,529**	**47,040**	**49,265**	**51,333**	**52,455**	**48,919**

(a) Due to changes in Customs' valuation, import data for periods prior to 1 July 1989 are not fully comparable with data for later periods. *See* the note 'Changes in the Valuation of Imports' in the explanatory notes of the 1989–90 issue of *Foreign Trade, Australia: Merchandise Exports and Imports (5410.0)*. (b) Excludes imports commodities subject to a 'No Commodity Details' restriction. (c) Excludes exports commodities subject to a 'No Commodity Details' restriction. (d) Includes commodities subject to a 'No Commodity Details' restriction. For further information *see* the confidentiality appendices in ABS Foreign Trade publications.

Source: Foreign Trade, Australia, Merchandise Exports, June 1991 (5432.0) and Foreign Trade, Australia: Merchandise Imports, June 1991 (5433.0).

EXPORTS BY INDUSTRY OF ORIGIN

Australian Standard Industrial Classification (ASIC) Division/subdivision	*1988–89*		*1989–90*		*1990–91*	
	$ million	*Per cent*	*$ million*	*Per cent*	*$ million*	*Per cent*
Agriculture, forestry, fishing and hunting						
01 Agriculture	7,883	18	7,145	15	5,033	10
03 Forestry and logging	5	—	6	—	14	—
04 Fishing and hunting	119	—	180	—	169	—
Total	*8,008*	*18*	*7,332*	*15*	*5,216*	*10*
Mining						
11 Metallic minerals	4,243	10	4,379	9	4,451	9
12 Coal	4,641	11	5,825	12	6,392	12
13 Oil and gas	727	2	1,483	3	2,788	5
14 Construction materials	4	—	4	—	24	—
15 Other non-metallic minerals	130	—	150	—	169	—
Total	*9,745*	*22*	*11,841*	*24*	*13,824*	*26*

... continued

EXPORTS BY INDUSTRY OF ORIGIN — *continued*

Australian Standard Industrial Classification (ASIC) Division/subdivision	*1988–89*		*1989–90*		*1990–91*	
	$ million	*Per cent*	*$ million*	*Per cent*	*$ million*	*Per cent*
Manufacturing						
21 Food, beverages and tobacco	6,094	14	7,309	15	7,387	14
23 Textiles	1,809	4	1,656	3	1,724	3
24 Clothing and footwear	86	—	144	—	158	—
25 Wood, wood products and furniture	476	1	460	1	524	1
26 Paper, paper products, printing and publishing	261	1	339	1	344	1
27 Chemical petroleum and coal products	1,969	5	2,278	5	2,842	5
28 Non-metallic mineral products	130	—	129	—	144	—
29 Basic metal products	9,137	21	10,285	21	11,490	22
31 Fabricated metal products	536	1	605	1	644	1
32 Transport equipment	1,059	2	1,478	3	1,873	4
33 Other machinery and equipment	2,224	5	2,779	6	3,344	6
34 Miscellaneous manufacturing	599	1	733	2	803	2
Total	*24,380*	*56*	*28,196*	*57*	*31,277*	*60*
Other industries						
Wholesale, retail and service industries	61	—	145	—	83	—
Confidential items; Waste and scrap n.e.s.; Second hand goods n.e.s.; Special goods	1,336	3	1,751	4	2,055	4
Total	*1,397*	*3*	*1,896*	*4*	*2,138*	*4*
Total exports	**43,529**	**100**	**49,265**	**100**	**52,455**	**100**

Source: Foreign Trade, Australia: Merchandise Exports, June 1991 (5432.0) and Foreign Trade, Australia: Merchandise Imports, June 1991 (5433.0).

IMPORTS BY INDUSTRY OF ORIGIN

Australian Standard Industrial Classification (ASIC) Division/subdivision	*1988–89(a)*		*1989–90*		*1990–91*	
	$ million	*Per cent*	*$ million*	*Per cent*	*$ million*	*Per cent*
Agriculture, forestry, fishing and hunting						
01 Agriculture	645	1	569	1	520	1
03 Forestry and logging	3	—	5	—	3	—
04 Fishing and hunting	20	—	25	—	24	—
Total	*668*	*1*	*598*	*1*	*546*	*1*
Mining						
11 Metallic minerals	47	—	110	—	99	—
12 Coal	8	—	12	—	1	—
13 Oil and gas	998	2	1,090	2	1,510	3
14 Construction materials	22	—	19	—	13	—
15 Other non-metallic minerals	260	1	206	—	96	—
Total	*1,335*	*3*	*1,436*	*3*	*1,720*	*4*
Manufacturing						
21 Food, beverages and tobacco	1,862	4	1,996	4	2,081	4
23 Textiles	2,301	5	2,452	5	2,128	4
24 Clothing and footwear	1,047	2	1,185	2	1,278	3
25 Wood, wood products and furniture	1,022	2	1,006	2	884	2
26 Paper, paper products, printing and publishing	2,170	5	2,277	4	2,065	4
27 Chemical petroleum and coal products	5,611	12	6,214	12	6,332	13
28 Non-metallic mineral products	875	2	976	2	864	2
29 Basic metal products	1,683	4	1,834	4	1,969	4
31 Fabricated metal products	1,323	3	1,596	3	1,431	3
32 Transport equipment	7,202	15	8,190	16	8,024	16
33 Other machinery and equipment	15,562	33	17,253	34	15,952	33
34 Miscellaneous manufacturing	3,048	7	3,348	7	3,130	6
Total	*43,704*	*93*	*48,326*	*94*	*46,139*	*94*

... continued

IMPORTS BY INDUSTRY OF ORIGIN — *continued*

Australian Standard Industrial Classification (ASIC) Division/subdivision	*1988–89(a)*		*1989–90*		*1990–91*	
	$ million	*Per cent*	*$ million*	*Per cent*	*$ million*	*Per cent*
Other industries						
Wholesale retail and service industries	369	1	222	—	160	—
Confidential items; Waste and scrap n.e.s.; Second hand goods n.e.s.; Special goods	963	2	751	2	355	1
Total	*1,332*	*3*	*973*	*2*	*515*	*1*
Total imports	**47,040**	**100**	**51,333**	**100**	**48,919**	**100**

(a) Due to changes in Customs' valuation, import data for periods prior to 1 July are not fully comparable with data for later periods. *See* the note 'Changes to the Valuation of Imports' in the explanatory notes of the 1989–90 issue of *Foreign Trade, Australia: Merchandise Exports and Imports* (5410.0).

Source: Foreign Trade, Australia: Merchandise Exports, June 1991 (5432.0) and Foreign Trade, Australia: Merchandise Imports, June 1991 (5433.0).

EXPORTS BY BROAD ECONOMIC CATEGORIES (BEC)

	1988–89		*1989–90*		*1990–91*	
BEC	*$ million*	*Per cent*	*$ million*	*Per cent*	*$ million*	*Per cent*
Food and beverages	8,347	19	10,143	20	9,549	18
Primary	3,602	8	4,288	9	3,464	6
Mainly for industry	2,744	6	3,269	7	2,379	5
Mainly for household consumption	858	2	1,019	2	1,085	2
Processed	4,745	11	5,855	12	6,085	12
Mainly for industry	1,237	3	1,536	3	1,344	3
Mainly for household consumption	3,508	8	4,319	9	4,741	9
Industrial supplies not elsewhere specified	23,616	54	24,010	49	24,410	47
Primary	11,406	26	10,764	22	9,853	19
Processed	12,210	28	13,246	27	14,557	28
Fuels and lubricants	6,346	15	8,381	17	10,661	20
Primary	5,203	12	6,817	14	8,175	16
Processed	1,143	3	1,564	3	2,486	5
Motor spirit	56	—	79	—	90	—
Other	1,087	3	1,485	3	2,396	5
Capital goods (except transport equipment) and parts and accessories thereof	1,776	4	2,356	5	2,812	5
Capital goods (except transport equipment)	941	2	1,213	3	1,382	3
Parts and accessories	835	2	1,143	2	1,431	3
Transport equipment and parts and accessories thereof	1,173	3	1,551	3	2,005	4
Passenger motor cars	169	—	281	1	511	1
Other	282	1	352	1	353	1
Industrial	194	—	282	1	272	1
Non-industrial	87	—	70	—	80	—
Parts and accessories	722	2	919	2	1,141	2
Consumer goods not elsewhere specified	990	2	1,241	3	1,295	3
Durable	277	1	396	1	334	1
Semi-durable	286	1	377	1	406	1
Non-durable	427	1	468	1	556	1
Goods not elsewhere specified(a)	1,280	3	1,583	3	1,722	3
Total exports	**43,529**	**100**	**49,265**	**100**	**52,455**	**100**

(a) Includes commodities subject to a confidentiality restriction. For further information *see* the confidentiality appendices in ABS Foreign Trade publications.

Source: Foreign Trade, Australia: Merchandise Exports, June 1991 (5432.0) and Foreign Trade, Australia: Merchandise Imports, June 1991 (5433.0).

IMPORTS BY BROAD ECONOMIC CATEGORIES (BEC)

	1988–89(a)		1989–90		1990–91	
BEC	$ million	Per cent	$ million	Per cent	$ million	Per cent
Food and beverages	2,173	5	2,252	4	2,303	5
Primary	650	1	619	1	591	1
Mainly for industry	317	1	251	1	212	—
Mainly for household consumption	333	1	369	1	379	1
Processed	1,523	3	1,633	3	1,713	4
Mainly for industry	189	—	193	—	183	—
Mainly for household consumption	1,333	3	1,439	3	1,530	3
Industrial supplies not elsewhere specified	13,598	29	14,111	28	13,198	27
Primary	708	2	691	1	554	1
Processed	12,890	27	13,420	26	12,643	26
Fuels and lubricants	1,906	4	2,358	5	2,959	6
Primary	1,006	2	1,088	2	1,505	3
Processed	901	2	1,270	3	1,454	3
Motor Spirit	230	1	302	1	156	—
Other	671	1	967	2	1,297	3
Capital goods (except transport equipment) and parts and accessories thereof	12,996	28	14,676	29	13,270	27
Capital goods (except transport equipment)	8,885	19	9,861	19	8,755	18
Parts and accessories	4,111	9	4,815	9	4,516	9
Transport equipment and parts and accessories thereof	8,049	17	9,166	18	8,921	18
Passenger motor cars	2,231	5	2,219	4	2,217	5
Other	3,052	7	3,588	7	3,687	8
Industrial	2,761	6	3,313	7	3,456	7
Non-industrial	291	1	275	1	231	1
Parts and accessories	2,766	6	3,360	7	3,017	6
Consumer goods not elsewhere specified	7,235	15	7,902	15	7,830	16
Durable	2,504	5	2,495	5	2,229	5
Semi-durable	2,788	6	3,129	6	3,211	7
Non-durable	1,942	4	2,277	4	2,390	5
Goods not elsewhere specified(b)	1,083	2	869	2	438	1
Total imports	**47,040**	**100**	**51,333**	**100**	**48,919**	**100**

(a) Due to changes in Customs' valuation, import data for periods prior to 1 July 1989 are not fully comparable with data for later periods. *See* the note 'Changes in the Valuation of Imports' in the explanatory notes of the 1989–90 issue of *Foreign Trade, Australia: Merchandise Exports and Imports* (5410.0). (b) Includes commodities subject to a confidentiality restriction. For further information *see* the confidentiality appendices in ABS Foreign Trade publications.

Source: Foreign Trade, Australia: Merchandise Exports, June 1991 (5432.0) and Foreign Trade, Australia: Merchandise Imports, June 1991 (5433.0).

FOREIGN INVESTMENT

Foreign investment statistics provide information on the *level* (stock) of Australia's foreign financial assets and liabilities, *capital transactions* (investment flows) which increase and decrease these assets and liabilities, *other changes* in the value of these assets and liabilities, and *income* receivable and payable on these assets and liabilities.

These statistics form an integral part of Australia's balance of payments as well as being useful in their own right e.g., in determining the impact of foreign investment policies and the level of Australia's foreign assets and liabilities, including foreign debt. They are also useful when analysing the behaviour of financial markets.

Classification

The primary classification used in foreign investment statistics is the direction of investment. This classification refers to the basic distinction between inward and outward investment, i.e., foreign investment in Australia or Australian investment abroad. Broadly, *foreign investment in Australia* refers to the stock of financial assets in Australia owned by non-residents and capital transactions which increase or decrease this stock. Conversely, *Australian investment abroad* refers to the stock of financial assets abroad owned by Australian residents and capital transactions which increase or decrease this stock.

Foreign investment is undertaken by means of instruments of investment. Many types of instruments of investment can be identified, but for analytical reasons and ease of reporting similar instruments are combined.

- *Equity* includes ordinary and preference shares, units in trusts and net equity in branches.
- *Borrowing* (foreign investment in Australia) or lending (Australian investment abroad) comprises deposits, loans, finance leases, bonds, bills, IMF credit and Bank of International Settlements placements.
- *Reserve Assets* includes monetary gold, Special Drawing Rights and reserve position in the IMF and foreign exchange held by the Reserve Bank of Australia.
- *Other investments* consist of amounts outstanding in respect of goods, services, interest, dividends, etc.
- *Reinvestment of earnings* of direct investors refers to income retained from after tax profits attributable to direct investors.

Valuation and timing

Market price is the principle method of valuation in foreign investment statistics. Capital transactions are recorded on a change of ownership basis, i.e., at the time when the foreign financial asset or liability is acquired, sold, repaid or otherwise disposed of. By convention, this is taken to be the time at which the event is recorded in the books of the transactors. Investment income is generally recorded at the time it becomes due for payment.

International investment position

Australia's net international investment position is the difference between the levels of Australia's foreign liabilities (foreign investment in Australia) and the levels of Australia's foreign financial assets (Australian investment abroad). Historically Australia has had a net liabilities position with the rest of the world.

The following summary table shows a reconciliation between opening and closing levels for foreign investment in Australia, Australian investment abroad and Australia's net international investment position. The table also shows income payable on foreign investment in Australia, income receivable on Australian investment abroad and net income payable.

FOREIGN INVESTMENT SUMMARY
($ million)

		Changes in levels of investment during the year						
Year	*Levels of investment at beginning of year*	*Reinvestment of earnings of direct investors*	*Other transactions*	*Exchange rate variations*	*Other changes*	*Total*	*Levels of investment at end of year*	*Investment income (a)*
	FOREIGN INVESTMENT IN AUSTRALIA							
Equity								
1987–88	65,290	2,428	5,129	71	–3,743	3,885	69,175	4,221
1988–89	69,175	2,131	8,270	–34	5,262	15,629	84,804	5,222
1989–90	84,804	1,536	5,261	74	1,519	8,390	93,194	5,511
Borrowing								
1987–88	107,416	. .	20,126	–4,767	28	15,385	122,802	8,855
1988–89	122,802	. .	20,233	1,111	1,223	22,568	145,370	10,801
1989–90	145,370	. .	15,073	–1,220	–1,907	11,946	157,317	14,244
Other investment(b)								
1987–88	7,439	. .	69	–166	173	77	7,515	32
1988–89	7,515	. .	572	31	–865	–261	7,254	269
1989–90	7,254	. .	–1,390	128	213	–1,049	6,205	377
Total(b)								
1987–88	180,144	2,428	25,324	–4,863	–3,541	19,348	199,492	13,108
1988–89	199,492	2,131	29,075	1,109	5,621	37,937	237,429	16,293
1989–90	237,429	1,536	18,944	–1,017	–176	19,287	256,716	20,133

For footnotes *see* end of table.

FOREIGN INVESTMENT SUMMARY — *continued*
($ million)

		Changes in levels of investment during the year						
Year	*Levels of investment at beginning of year*	*Reinvestment of earnings of direct investors*	*Other transactions*	*Exchange rate variations*	*Other changes*	*Total*	*Levels of investment at end of year*	*Investment income (a)*
AUSTRALIAN INVESTMENT ABROAD								
Equity								
1987–88	33,876	2,163	7,783	–164	–3,880	5,903	39,778	2,479
1988–89	39,778	2,029	6,518	–512	489	8,524	48,302	2,399
1989–90	48,302	1,591	1,237	264	572	3,665	51,967	2,162
Reserve assets								
1987–88	17,594	. .	3,924	–893	–443	2,588	20,182	706
1988–89	20,182	. .	873	3	–648	228	20,410	998
1989–90	20,410	. .	2,156	–375	–320	1,461	21,871	1,261
Lending								
1987–88	3,685	. .	2,606	–35	513	3,085	6,769	335
1988–89	6,769	. .	2,256	–130	78	2,205	8,974	259
1989–90	8,974	. .	982	29	–1,227	–216	8,758	485
Other investment(b)								
1987–88	6,852	. .	27	–34	(c)–394	–401	6,451	104
1988–89	6,451	. .	973	41	259	1,273	7,724	105
1989–90	7,724	. .	–21	–17	705	667	8,391	156
Total(b)								
1987–88	62,007	2,163	14,339	–1,126	–4,204	11,172	73,179	3,624
1988–89	73,179	2,029	10,620	–598	181	12,232	85,411	3,762
1989–90	85,411	1,591	4,354	–99	–271	5,576	90,987	4,062
NET INTERNATIONAL INVESTMENT POSITION AND INCOME(d)								
Net equity								
1987–88	31,414	265	–2,654	235	137	–2,018	29,398	1,742
1988–89	29,398	102	1,752	478	4,773	7,105	36,502	2,823
1989–90	36,502	–56	4,024	–190	947	4,725	41,227	3,349
Net foreign debt(e)								
1987–88	86,137	. .	13,596	–3,840	–42	9,712	95,851	7,813
1988–89	95,851	. .	17,104	1,238	1,793	20,135	115,986	9,544
1989–90	115,986	. .	11,935	–874	–360	10,701	126,688	12,499
Other investment								
1987–88	587	. .	42	–132	567	478	1,064	–72
1988–89	1,064	. .	–401	–10	–1,124	–1,534	–470	164
1989–90	–470	. .	–1,369	145	–492	–1,716	–2,186	222
Total								
1987–88	118,137	265	10,985	–3,736	663	8,176	126,313	9,484
1988–89	126,313	102	18,455	1,707	5,440	25,705	152,018	12,531
1989–90	152,018	–56	14,590	–918	95	13,711	165,729	16,071

(a) Includes reinvested earnings of direct investors. (b) Details of exchange rate variations for accounts payable/prepayments received (foreign investment in Australia) and accounts receivable/prepayments made (Australian investment abroad), components of 'other investment', are not available prior to 1988–89 and have been included in 'other changes'. (c) As a result of a change in source for accounts payable/prepayments received (foreign investment in Australia) and accounts receivable/prepayments made (Australian investment abroad), components of 'other investment', levels at 30 June 1988 are not strictly comparable with levels of data shown for earlier periods. The changed data source accounts for decreases of $409 million and $656 million in the 1987–88 'other changes' for foreign investment in Australia and Australian investment abroad respectively. (d) Net international investment position equals foreign investment in Australia less Australian investment abroad. (e) Foreign borrowing by Australian residents less the sum of reserve assets and Australian lending abroad.

Source: International Investment Position, Australia (5305.0).

Foreign debt is a subset of financial obligations that comprise a country's international investment position. The level of borrowing by Australian residents at a particular point can be equated with Australia's *gross foreign debt*. The level of Australian lending abroad and official reserve assets at the same date are deducted from the level of borrowing to arrive at Australia's net *foreign debt*.

LEVELS OF FOREIGN DEBT
($ million)

						At 30 June
	1985	*1986*	*1987*	*1988*	*1989*	*1990*
FOREIGN BORROWING (GROSS DEBT)						
Official						
Commonwealth Government and Reserve Bank	12,982	19,753	23,678	22,909	18,607	19,360
State government	1,901	3,855	6,684	10,627	18,584	19,412
Total official	*14,883*	*23,609*	*30,362*	*33,536*	*37,192*	*38,772*
Non-official						
Financial enterprises						
Public sector	2,530	5,505	7,073	10,843	16,357	19,981
Private sector	9,034	15,272	19,870	24,031	31,343	36,201
Total	*11,564*	*20,777*	*26,943*	*34,873*	*47,700*	*56,183*
Trading enterprises						
Public sector	12,452	13,504	12,517	12,739	11,439	11,951
Private sector	28,574	34,661	37,594	41,654	49,040	50,411
Total	*41,026*	*48,165*	*50,110*	*54,393*	*60,479*	*62,362*
Total non-official	*52,590*	*68,941*	*77,054*	*89,266*	*108,178*	*118,544*
of which						
Public sector	14,982	19,009	19,589	23,581	27,796	31,932
Private sector	37,608	49,933	57,464	65,685	80,383	86,612
Total	**67,473**	**92,550**	**107,416**	**122,802**	**145,370**	**157,317**
AUSTRALIAN LENDING ABROAD AND RESERVE ASSETS						
Official						
Reserve assets(a)	13,517	13,024	17,594	20,182	20,410	21,871
Lending	106	137	364	649	914	849
Total official	*13,623*	*13,161*	*17,958*	*20,831*	*21,324*	*22,720*
Non-official						
Financial enterprises	1,190	2,838	3,677	4,887	7,469	9,756
Trading enterprises	1,451	1,006	–356	1,232	592	–1,847
Total non-official	*2,642*	*3,845*	*3,321*	*6,119*	*8,061*	*7,909*
of which						
Public sector	358	1,158	1,014	2,131	4,449	5,846
Private sector	2,284	2,686	2,307	3,988	3,612	2,063
Total	**16,265**	**17,005**	**21,279**	**26,951**	**29,384**	**30,629**
NET FOREIGN DEBT(b)						
Official	1,260	10,448	12,404	12,705	15,868	16,052
Non-official						
Financial enterprises	10,374	17,939	23,266	29,986	40,231	46,427
Trading enterprises	39,575	47,158	50,466	53,161	59,887	64,209
Total non-official	*49,948*	*65,097*	*73,732*	*83,147*	*100,118*	*110,636*
of which						
Public sector	14,624	17,851	18,575	21,450	23,347	26,086
Private sector	35,324	47,247	55,157	61,696	76,771	84,550
Total	**51,208**	**75,545**	**86,137**	**95,851**	**115,986**	**126,688**

(a) From 30 June 1985, figures for official reserve assets are not fully comparable with earlier data due to changes in the Reserve Bank's accounting procedures. (b) Foreign borrowing by Australian residents less the sum of Australian lending abroad and reserve assets.

Source: International Investment Position, Australia (5305.0).

The country dissection of statistics on foreign investment shows the countries investing in Australia or receiving investment from Australia. The classification is based upon the country of residence of the foreign creditor or debtor holding Australia's liabilities or financial assets. It does not necessarily reflect either the country of ultimate beneficial ownership of the investment, the country of immediate source of funds or the country to which amounts borrowed will in fact be repaid.

FOREIGN INVESTMENT IN AUSTRALIA, BY COUNTRY
($ million)

Country of investor	*1984–85*	*1985–86*	*1986–87*	*1987–88*	*1988–89*	*1989–90*
CAPITAL TRANSACTIONS						
OECD						
USA	3,564	4,304	4,628	675	6,154	1,837
Japan	3,454	3,173	1,095	7,080	7,416	6,133
Switzerland	399	544	337	667	383	573
EEC						
UK	2,587	2,282	3,563	6,425	1,642	69
Other(a)	1,290	3,051	1,774	1,213	2,197	757
Total	*3,877*	*5,333*	*5,337*	*7,637*	*3,839*	*826*
Other OECD(a)	402	871	1,833	1,642	779	–161
Total OECD	*11,697*	*14,224*	*13,230*	*17,701*	*18,572*	*9,209*
ASEAN	592	–836	1,003	89	–1,015	587
Other countries	71	–760	1,169	2,032	2,285	617
International capital markets	2,321	6,806	6,890	5,190	7,945	8,101
International institutions	–55	14	–24	–71	–259	–30
Unallocated	462	548	573	2,810	3,679	1,996
Total	**15,088**	**19,994**	**22,841**	**27,752**	**31,207**	**20,480**
INVESTMENT INCOME						
OECD						
USA	2,037	2,465	2,798	3,597	3,490	4,291
Japan	1,224	1,377	1,651	1,790	2,669	3,746
Switzerland	213	262	383	367	479	538
EEC						
UK	1,858	1,999	2,208	2,268	3,368	3,715
Other(a)	524	720	1,014	1,255	1,326	1,355
Total	*2,382*	*2,719*	*3,220*	*3,521*	*4,693*	*5,071*
Other OECD(a)	212	327	321	362	182	304
Total OECD	*6,066*	*7,151*	*8,373*	*9,639*	*11,513*	*13,948*
ASEAN	739	694	613	480	652	664
Other countries	440	393	333	333	696	660
International capital markets	124	555	955	1,557	2,497	3,852
International institutions	32	24	22	22	18	34
Unallocated	187	241	389	1,076	916	972
Total	**7,589**	**9,058**	**10,685**	**13,108**	**16,293**	**20,132**

For footnotes *see* end of table.

FOREIGN INVESTMENT IN AUSTRALIA, BY COUNTRY — *continued*
($ million)

Country of investor	*1984–85*	*1985–86*	*1986–87*	*1987–88*	*1988–89*	*1989–90*
LEVELS OF INVESTMENT AT END OF YEAR						
OECD						
USA	26,819	31,903	41,698	40,108	47,183	46,386
Japan	16,200	21,340	22,551	29,512	38,163	45,364
Switzerland	4,050	5,856	7,505	7,403	7,129	8,022
EEC						
UK	26,438	29,968	38,323	44,431	47,930	46,092
Other(a)	10,441	14,443	17,848	18,824	20,020	21,984
Total	*36,879*	*44,411*	*56,171*	*63,255*	*67,950*	*68,076*
Other OECD(a)	3,801	4,541	8,690	8,245	10,981	9,260
Total OECD	*87,749*	*108,051*	*136,615*	*148,522*	*171,406*	*177,107*
ASEAN	9,695	8,951	10,449	8,170	7,445	7,749
Other countries	6,840	5,803	6,862	8,245	11,318	11,957
International capital markets	4,466	13,306	21,282	26,050	34,562	44,137
International institutions	341	365	332	239	287	257
Unallocated	2,527	4,111	4,604	8,266	12,410	15,508
Total	**111,618**	**140,587**	**180,144**	**199,492**	**237,429**	**256,716**

(*a*) Until 1985–86, Spain and Portugal are included in 'Other OECD', from 1985–86 they are included in 'Other EEC'.
Source: International Investment Position, Australia (5305.0).

AUSTRALIAN INVESTMENT ABROAD, BY COUNTRY
($A million)

Country of investment	*1984–85*	*1985–86*	*1986–87*	*1987–88*	*1988–89*	*1989–90*
CAPITAL TRANSACTIONS						
OECD						
USA	–307	1,294	7,694	2,451	6,858	2,589
New Zealand	231	2	1,550	1,319	601	2,655
UK	717	788	1,288	5,089	2,067	1,418
Other OECD(a)	1,521	1,000	1,400	2,670	2,309	918
Total OECD	*2,161*	*3,084*	*11,932*	*11,529*	*11,835*	*7,580*
ASEAN	319	111	252	–108	797	732
Papua New Guinea	94	–107	13	404	178	85
Other countries	351	2,230	689	2,420	–403	–1,356
Unallocated	231	–456	220	2,257	241	–1,095
Total	**3,156**	**4,862**	**13,106**	**16,502**	**12,649**	**5,945**
INVESTMENT INCOME						
OECD						
USA	698	405	552	686	1,335	1,990
New Zealand	173	262	344	319	306	946
UK	96	277	326	676	710	–31
Other OECD(a)	270	396	437	640	514	59
Total OECD	*1,237*	*1,340*	*1,660*	*2,322*	*2,865*	*2,965*
ASEAN	101	154	149	113	138	202
Papua New Guinea	53	141	61	3	79	–5
Other countries	80	212	579	1,044	531	656
Unallocated	54	119	220	143	146	244
Total	**1,525**	**1,966**	**2,669**	**3,624**	**3,759**	**4,062**

For footnotes *see* end of table

AUSTRALIAN INVESTMENT ABROAD, BY COUNTRY — *continued*
($A million)

Country of investment	*1984–85*	*1985–86*	*1986–87*	*1987–88*	*1988–89*	*1989–90*
			LEVELS OF INVESTMENT AT END OF YEAR			
OECD						
USA	11,906	13,081	20,797	20,963	25,248	33,990
New Zealand	927	1,599	3,600	4,732	5,130	6,880
UK	2,511	3,652	6,839	13,032	15,515	17,811
Other OECD(a)	6,399	9,848	12,720	14,804	19,622	13,279
Total OECD	*21,744*	*28,180*	*43,956*	*53,532*	*65,515*	*71,960*
ASEAN	1,582	1,357	1,938	1,495	1,882	3,213
Papua New Guinea	994	856	1,437	1,725	1,494	1,556
Other countries	3,977	7,038	7,870	9,011	7,855	5,532
Reserve Bank gold(b)	3,772	4,014	4,951	4,509	3,861	3,541
Unallocated	1,691	1,838	1,855	2,908	4,804	5,185
Total	**33,760**	**43,283**	**62,007**	**73,179**	**85,411**	**90,987**

(a) The foreign exchange part of reserve assets, with the exception of those held in the USA, are not available by country and are therefore included in 'Other OECD'. (b) Gold held by the Reserve Bank as part of reserve assets which cannot be allocated by country.

Source: International Investment Position, Australia (5305.0).

The industry classification used in foreign investment statistics is based upon the Australian Standard Industrial Classification (ASIC), 1983 edition. For both foreign investment in Australia and Australian investment abroad, investment is classified by the industry of the enterprise group receiving that investment. Industry statistics should be treated with some caution as they do not necessarily reflect the industry in which the funds are ultimately employed.

FOREIGN INVESTMENT IN AUSTRALIA, BY INDUSTRY(a)
($ million)

Industry of investment (ASIC division)			*1984–85*	*1985–86*	*1986–87*	*1987–88*	*1988–89*	*1989–90*
CAPITAL TRANSACTIONS								
B	Mining							
	12,13	Coal, oil and gas	–107	–997	1,499	1,106	1,026	1,532
	11,14,15	Other mining	577	–254	–666	839	500	–87
	16	Services to mining (incl. exlporation)	49	231	291	353	31	140
		Total mining	*519*	*–1,020*	*1,123*	*2,298*	*1,558*	*1,585*
C	Manufacturing							
	21	Food,beverages and tobacco	640	1,006	2,076	1,818	1,612	–114
	23	Textiles	40	51	49	–30	7	21
	24	Cothing and footwear	77	8	–97	–10	62	32
	25	Wood products and furniture	21	57	19	–73	–18	3
	26	Paper products and publishing	13	–88	203	555	850	652
	27	Chemicals, petroleum and coal products	–245	257	499	161	326	290
	28	Non-metallic mineral products	35	–141	–338	–409	–70	–73
	29	Basic metal products	–96	1,339	–749	551	539	–592
	31	Fabricated metal products	–8	145	116	95	–138	276
	32	Transport equipment	64	–263	927	250	433	–50
	33	Other machinery and equipment	241	389	–108	125	117	69
	34	Miscellaneous manufacturing	118	184	594	1,123	707	1,123
		Total manufacturing	*901*	*2,946*	*3,191*	*4,158*	*4,429*	*1,636*
Other industries								
A	Agriculture, forestry, fishing and hunting		3	41	438	–122	120	149
D	Electricity, gas and water		745	314	–995	–105	–1,799	144
E	Construction		62	–59	358	–57	–345	–68
F	Wholesale and retail trade		1,898	1,009	1,316	1,690	1,738	1,693
G	Transport and storage		402	392	405	155	1,328	716
I	Finance, property and business services(b)		6,973	11,430	12,621	18,984	25,828	13,455
J	Public administration, and defence		2,629(c)	4,161	3,549	–8	–4,654	393
H,K,L	Other industries(d)		294	235	202	444	940	–368
M	Unallocated(e)		662	548	633	315	2,065	1,145
	Total other industries		*13,668*	*18,069*	*18,526*	*21,296*	*25,220*	*17,258*
Total all industries			**15,088**	**19,994**	**22,841**	**27,752**	**31,207**	**20,480**

For footnotes *see* end of table.

FOREIGN INVESTMENT IN AUSTRALIA, BY INDUSTRY(a) — *continued*
($ million)

Industry of investment (ASIC division)			*1984–85*	*1985–86*	*1986–87*	*1987–88*	*1988–89*	*1989–90*
		INVESTMENT INCOME						
B	Mining							
	12,13	Coal, oil and gas	719	1,021	699	749	562	1,096
	11,14,15	Other mining	449	736	441	464	802	747
	16	Services to mining (incl. exploration)	–85	70	97	97	–17	89
		Total mining	*1,083*	*1,827*	*1,237*	*1,309*	*1,347*	*1,932*
C	Manufacturing							
	21	Food, beverages and tobacco	353	536	593	833	927	797
	23	Textiles	39	47	37	33	26	51
	24	Clothing and footwear	3	12	10	10	15	12
	25	Wood products and furniture	10	19	14	20	12	10
	26	Paper products and publishing	59	90	169	77	99	291
	27	Chemicals, petroleum and coal products	131	181	223	332	483	405
	28	Non-metallic mineral products	107	77	102	77	45	50
	29	Basic metal products	565	544	702	947	1,012	1,196
	31	Fabricated metal products	43	33	56	57	66	53
	32	Transport equipment	191	83	–192	33	232	94
	33	Other machinery and equipment	108	81	2	254	298	229
	34	Miscellaneous manufacturing	14	66	79	159	479	585
		Total manufacturing	*1,623*	*1,770*	*1,795*	*2,832*	*3,693*	*3,773*
Other industries								
A	Agriculture, forestry, fishing and hunting		2	24	5	10	53	15
D	Electricity, gas and water		424	492	530	452	436	295
E	Construction		31	69	58	119	74	36
F	Wholesale and retail trade		688	468	940	1,141	1,906	2,471
G	Transport and storage		262	370	381	420	595	736
I	Finance, property and business services(b)		1,882	1,816	2,749	3,886	4,842	6,606
J	Public administration, and defence(c)		927	1,345	1,912	2,295	2,409	2,679
H,K,L	Other industries(d)		74	76	50	104	80	92
M	Unallocated(e)		592	800	1,028	539	859	1,498
	Total other industries		*4,883*	*5,460*	*7,653*	*8,967*	*11,252*	*14,428*
Total all industries			**7,589**	**9,058**	**10,686**	**13,108**	**16,293**	**20,133**

For footnotes *see* end of table.

FOREIGN INVESTMENT IN AUSTRALIA, BY INDUSTRY(a) — *continued*
($ million)

Industry of investment (ASIC division)			*1984–85*	*1985–86*	*1986–87*	*1987–88*	*1988–89*	*1989–90*
LEVELS OF INVESTMENT AT END OF YEAR								
B	Mining							
	12,13	Coal, gas and oil	7,468	6,094	8,159	8,570	9,714	11,485
	11,14,15	Other mining	9,002	9,273	14,477	13,126	12,864	12,973
	16	Services to mining (incl. exploration)	2,992	2,583	6,177	4,142	3,763	4,080
		Total mining	*19,462*	*17,949*	*28,813*	*25,838*	*26,342*	*28,538*
C	Manufacturing							
	21	Food, beverages and tobacco	4,093	5,644	8,624	9,757	12,532	12,825
	23	Textiles	227	268	498	383	552	429
	24	Clothing and footwear	199	226	138	85	211	112
	25	Wood products and furniture	137	171	153	81	56	73
	26	Paper products and publishing	715	1,324	2,455	2,280	3,532	3,906
	27	Chemicals, petroleum and coal products	2,129	2,489	3,632	4,692	5,183	5,281
	28	Non-metallic mineral products	1,385	1,183	1,052	643	537	959
	29	Basic metal products	7,762	10,344	10,211	10,417	11,242	10,625
	31	Fabricated metal products	587	775	966	979	843	1,178
	32	Transport equipment	1,652	1,406	1,755	2,198	2,231	2,392
	33	Other machinery and equipment	2,578	2,928	2,560	2,868	4,395	2,685
	34	Miscellaneous manufacturing	658	883	2,944	4,613	6,040	7,836
		Total manufacturing	*22,121*	*27,641*	*34,988*	*38,996*	*47,354*	*48,301*
Other industries								
A	Agriculture, forestry, fishing and hunting		591	558	950	541	1,312	1,417
D	Electricity, gas and water		7,534	8,400	7,353	7,267	5,059	5,288
E	Construction		1,200	1,100	1,688	1,655	1,527	1,588
F	Wholesale and retail trade		14,378	15,104	16,714	19,591	22,970	24,529
G	Transport and storage		4,267	5,286	6,084	6,029	7,486	8,179
I	Finance, property and business services(b)		23,776	36,795	52,544	69,537	98,231	108,970
J	Public administration and defence(c)		13,273	20,130	24,027	23,131	18,720	19,285
H,K,L	Other industries(d)		1,651	1,846	1,804	2,334	3,245	2,468
M	Unallocated(e)		3,365	5,776	5,179	4,574	5,183	8,151
	Total other industries		*70,035*	*94,997*	*116,343*	*134,658*	*163,733*	*179,876*
Total all industries			**111,618**	**140,587**	**180,144**	**199,492**	**237,429**	**256,716**

(a) The industry categories shown are based on the 1983 edition of ASIC and relate to the predominant activity of the enterprise group receiving the investment funds. This is not necessarily the industry of the end use of the funds. (b) Includes the Reserve Bank and the State Government component of General Government. (c) Includes the Commonwealth Government component of General Government. (d) Consists of: Division H — Communications, Division K — Community services, and Division L — Recreation, personal and other services. (e) Details of accounts payable/prepayments received are not classified by industry prior to 1988–89 and are therefore included in 'Unallocated'.

Source: International Investment Position, Australia (5305.0).

FOREIGN PARTICIPATION

Foreign ownership and control statistics have been published by the ABS in the form of studies of particular industries or activities. Foreign control statistics provide a measure of the potential control, through ownership of voting shares, that foreign residents may have over the key policy decisions of enterprises in Australia. Foreign ownership statistics provided a measure of the beneficial equity interest held by foreign residents (individuals and companies) in enterprises in Australia. The scope of each study together with the methodology used is outlined in the individual foreign ownership and control publications listed in the bibliography at the end of the chapter.

BIBLIOGRAPHY

ABS Publications

Balance of Payments, Australia (5301.0) — monthly

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Foreign Control of Exports from Australia, 1985–86 (5348.0)

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Foreign Control of New Fixed Capital Expenditure by Private Enterprises in Selected Industries, Australia, 1982–83 (5333.0)

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Foreign Ownership and Control of the Banking Industry, Australia, June 1986 (5347.0)

Foreign Ownership and Control of the General Insurance Industry, Australia, 1983–84 (5309.0)

Foreign Ownership and Control of the Life Insurance Industry, Australia, 1983–84 (5311.0)

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Foreign Ownership and Control of the Mining Industry, Australia, 1984–85 (5317.0)

Foreign Ownership and Control of the Private Sector Construction Industry, Australia, 1984–85 (5343.0)

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Foreign Trade, Australia: Merchandise Exports and Imports (5410.0)

Foreign Trade, Australia: Merchandise Exports and Imports by Country (5422.0)

Foreign Trade, Australia: Merchandise Exports, Detailed Commodity Tables (5436.0)

Foreign Trade, Australia: Merchandise Imports (5426.0) — annual

Foreign Trade, Australia: Merchandise Imports (5433.0) — monthly

BIBLIOGRAPHY — *continued*

Foreign Trade, Australia: Merchandise Imports (5435.0) — quarterly

Foreign Trade, Australia: Merchandise Imports, Detailed Commodity Tables (5437.0)

Information Paper: Seasonal Adjustment of Australia's Monthly Balance of Payments Statistics (5359.0)

International Investment Position, Australia (5305.0) — annual

International Investment Position, Australia (5306.0) — quarterly

International Trade in Services, Australia (5354.0)

Other Publications

Related publications are available from:
Australian Customs Service —

- *Australian Customs Tariff*
- *Customs (Prohibited Imports) Regulations*

FOR MORE INFORMATION

The ABS has a far wider range of information on Australia than that contained in the *Year Book*. Information is available in the form of regular publications, electronic data services, special tables and from investigations of published and unpublished data.

For further information contact ABS Information Services at one of the addresses listed on the page facing the Introduction to the *Year Book*.

Historical Series

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DEMOGRAPHY

Year ended 31 December	Population			Natural increase	Net migration (a)	Marriages		Divorces (c)	Births		Deaths		Infant deaths	
	Males	Females	Persons			No.	Rate (b)		No.	Rate (d)	No.	Rate (b)	No.	Rate (b)
	'000	'000	'000	'000	'000	'000		'000	'000		'000		'000	
1901	2,005	1,820	3,825	36.6	3.0	28	7.3	. .	103	27.2	46	12.2	10.7	103.6
1911	2,382	2,192	4,574	74.3	74.4	39	8.8	1	122	27.2	48	10.7	8.4	68.5
1921	2,799	2,712	5,511	82.1	17.5	47	8.6	1	136	25.0	54	9.9	9.0	65.7
1931	3,333	3,220	6,553	61.9	–10.1	39	6.0	2	119	18.2	57	8.7	5.0	42.1
1941	3,599	3,545	7,144	59.1	(e) 6.9	75	10.6	3	135	18.9	75	10.6	5.3	39.7
1951	4,311	4,217	8,528	111.5	108.9	77	9.2	7	193	23.0	82	9.7	4.9	25.2
1960	5,253	5,139	10,392	141.9	89.1	75	7.3	7	230	22.4	88	8.6	4.6	20.2
1961	(f) 5,374	(f) 5,268	(f) 10,643	(f) 151.8	58.7	77	7.3	7	240	22.8	89	8.5	4.7	19.5
1962	5,470	5,376	10,846	144.4	59.0	79	7.4	7	237	22.3	93	8.7	4.8	20.4
1963	5,572	5,484	11,055	141.3	68.1	81	7.4	8	236	21.6	95	8.7	4.6	19.5
1964	5,683	5,597	11,280	129.1	95.8	86	7.7	8	229	20.6	101	9.0	4.4	19.1
1965	5,794	5,712	11,505	123.7	101.3	94	8.2	9	223	19.6	100	8.8	4.1	18.5
1966	5,891	5,814	11,705	119.2	80.2	(f) 96.0	(f) 8.3	10	(f) 224	(f) 19.3	(f) 105	(f) 9.0	(f) 4.2	(f) 18.7
1967	5,992	5,920	11,912	126.6	80.8	100	8.5	10	229	19.4	103	8.7	4.2	18.3
1968	6,108	6,037	12,146	131.4	102.0	106	8.8	11	241	20.0	110	9.1	4.3	17.8
1969	6,238	6,169	12,407	143.7	118.0	112	9.2	11	250	20.4	106	8.7	4.5	17.9
1970	6,365	6,299	12,663	144.5	111.8	116	9.3	12	258	20.6	113	9.0	4.6	17.9
1971	(g) 6,632.8	(g) 6,565.5	(g) 13,198.4	165.7	103.6	118	(g) 9.0	13	276	(g) 21.1	111	(g) 8.5	4.8	17.3
1972	6,735.7	6,673.6	13,409.3	155.2	56.3	114	8.6	16	265	19.9	110	8.3	4.4	16.7
1973	6,835.5	6,778.9	13,614.3	136.8	67.5	113	8.3	16	248	18.3	111	8.2	4.1	16.5
1974	6,941.9	6,890.0	13,832.0	129.3	87.2	111	8.1	18	245	17.9	116	8.4	4.0	16.1
1975	7,002.2	6,966.6	13,968.9	124.0	13.5	104	7.5	24	233	16.8	109	7.8	3.3	14.3
1976	7,065.8	7,044.3	14,110.1	115.1	43.0	110	7.8	(h) 63	228	16.2	113	8.0	3.2	13.8
1977	7,145.4	7,136.1	14,281.5	117.5	68.0	105	7.4	45	226	15.9	109	7.7	2.8	12.5
1978	7,213.6	7,217.3	14,430.8	115.8	47.4	103	7.2	41	224	15.6	108	7.5	2.7	12.2
1979	7,293.3	7,309.1	14,602.5	116.6	68.6	104	7.2	38	223	15.4	107	7.3	2.5	11.4
1980	7,391.4	7,415.9	14,807.4	116.8	100.9	109	7.4	39	226	15.3	109	7.4	2.4	10.7
1981	7,514.3	7,539.8	15,054.1	126.8	123.1	114	7.6	41	236	15.8	109	7.3	2.3	10.0
1982	7,633.2	7,655.7	15,288.9	125.1	102.7	117	7.7	44	240	15.8	115	7.6	2.5	10.3
1983	7,730.4	7,753.1	15,483.5	132.5	55.0	115	7.5	44	243	15.8	110	7.2	2.3	9.4
1984	7,826.4	7,850.9	15,677.3	126.6	59.8	(i) 114	(i) 7.4	43	(i) 238	(i) 15.3	(i) 112	(i) 7.2	2.2	9.2
1985	7,940.0	7,960.5	15,900.6	126.1	89.3	114	7.2	40	243	15.4	117	7.4	2.4	10.0
1986	8,058.8	8,080.3	16,139.0	128.4	107.5	111	6.9	39	243	15.2	115	7.2	2.2	8.8
1987	8,187.7	8,211.2	16,398.9	126.6	133.3	114	7.0	40	244	15.0	117	7.2	2.1	8.7
1988	8,336.4	8,360.6	16,697.0	126.3	171.7	117	7.1	41	246	14.9	120	7.2	2.1	8.7
1989	8,465.8	8,491.0	16,956.8	126.6	133.2	117	7.0	41	251	14.9	124	7.4	2.0	8.0
1990	8,592.4	8,618.4	17,210.8	142.7	111.3	117	6.8	43	263	15.4	120	7.0	2.1	8.1

(a) Net overseas migration component used in population estimates. Prior to 30 June 1971, net migration includes discrepancies disclosed by the various censuses and is based on the excess of all arrivals over all departures. From 30 June 1971, net migration is defined as the excess of overseas arrivals over overseas departures classified as permanent and long term (greater than one year). From 30 June 1976, net migration consists of net permanent and long-term movement and an adjustment for the net effect of changes in travel intentions which affect the categorisation of movements. (b) Number per 1,000 of mean population. (c) Includes decrees made absolute and nullities of marriage up to and including 1946. From 1947 excludes nullities of marriage. (d) Number per 1,000 live births. (e) Excludes movements of defence personnel from September 1939 to June 1947. (f) Includes full blood Aboriginals. (g) Figures for 1971 and later years are the estimated resident population which include an estimate of residents not enumerated at the Census and an estimate of residents temporarily overseas. (h) Introduction of Family Law Act. (i) Adjusted to offset a lag in registrations that arose in New South Wales in 1984, affecting years 1985 and 1986.

Source: Australian Bureau of Statistics.

EDUCATION
('000)

	Schools(b)				Students				
	Government		Non-government						
Year(a)	Number	Students	Number	Students	Advanced education(c)	Universities	Higher education(d)	Technical education(e)	TAFE(f)
1902	7.2	637	2.4	144	. .	1.9	. .	. .	. .
1912	8.4	663	1.9	164	. .	3.8	. .	48.7	. .
1922	9.6	837	1.7	202	. .	7.8	. .	68.2	. .
1932	10.2	934	1.8	221	. .	9.9	. .	65.5	. .
1942	9.0	868	1.8	250	. .	10.8	. .	87.6	. .
1952	7.6	1,145	1.9	348	. .	29.6	. .	170.3	
1960	7.9	1,613	2.1	511	. .	53.4	. .	224.9	. .
1961	7.9	1,664	2.1	527	. .	57.7	. .	235.3	. .
1962	7.9	1,711	2.2	540	. .	63.3	. .	281.2	. .
1963	7.9	1,754	2.2	553	. .	69.1	. .	299.6	. .
1964	7.9	1,799	2.2	565	. .	76.2	. .	322.1	. .
1965	7.8	1,855	2.2	580	. .	83.3	. .	340.1	. .
1966	7.8	1,919	2.2	583	. .	91.3	. .	360.8	. .
1967	7.7	1,991	2.2	595	. .	95.4	. .	375.0	. .
1968	7.6	2,055	2.2	601	. .	101.5	. .	376.9	. .
1969	7.5	2,114	2.2	603	31.9	109.7	. .	388.8	. .
1970	7.5	2,160	2.2	608	37.6	116.8	. .	398.1	. .
1971	7.4	2,197	2.2	611	44.4	123.8	. .	387.8	. .
1972	7.4	2,229	2.2	612	52.0	128.7	. .	395.9	. .
1973	7.3	2,241	2.2	613	61.6	133.1	. .	n.a.	. .
1974	7.3	2,253	2.2	618	107.2	142.9	. .	430.3	. .
1975	7.3	2,290	2.1	620	122.6	148.3	. .	. .	612.6
1976	7.3	2,323	2.1	624	134.6	154.0	. .	. .	688.8
1977	7.3	2,349	2.1	630	140.3	158.4	. .	. .	768.4
1978	7.4	2,354	2.1	638	149.9	160.0	. .	. .	818.8
1979	7.4	2,337	2.2	650	155.7	160.8	. .	. .	871.0
1980	7.4	2,318	2.2	666	159.5	163.2	. .	. .	911.7
1981	7.5	2,299	2.3	688	165.1	166.6	. .	. .	983.3
1982	7.6	2,283	2.3	712	168.6	167.4	. .	. .	1,015.0
1983	7.5	2,281	2.4	735	179.9	169.4	. .	. .	1,145.4
1984	7.5	2,261	2.5	757	185.8	172.7	. .	. .	1,260.6
1985	7.6	2,231	2.5	775	195.2	174.8	. .	. .	1,316.6
1986	7.6	2,208	2.5	794	209.1	180.7	. .	. .	1,366.1
1987	7.6	2,197	2.5	808	. .	. .	393.7	. .	1,430.9
1988	7.5	2,198	2.5	825	. .	. .	420.9	. .	1,482.8
1989	7.5	2,194	2.5	837	. .	. .	441.1	. .	1,505.4
1990	7.5	2,193	2.5	848	. .	. .	485.1	. .	n.a.

(a) Years ended at varying dates. (b) From 1974, all pre-primary education undertaken on a sessional basis or in a recognised preschool class of primary/secondary school has been excluded. (c) Prior to 1983, includes students enrolled in Colleges of Advanced Education, and Teacher Colleges granted CAE status (in 1974). 1983 onwards, includes students enrolled in advanced education courses, irrespective of type of institution attended. (d) In 1987 the universities and advanced education collections were combined to form the higher education collection. (e) Includes students enrolled in Colleges of Advanced Education until 1968, Teacher Colleges, Schools, and Technical classes in High Schools. (f) Prior to 1981 includes student enrolments. 1981 onwards includes net number of students only.

Source: Department of Employment, Education and Training.

WAGES AND PRICES

Year ended 31 December	Weekly wages rates index adult males(a)	Award rates of pay index: weekly rates, adult males(b)	Award rates of pay index: weekly rates, adult males(c)	Retail price index numbers six State capital cities combined(d)
1901	n.a.	. .	. .	47
1911	n.a.	. .	. .	53
1921	n.a.	. .	. .	90
1931	n.a.	. .	. .	78
1941	38.5	. .	. .	89
1951	85.8	. .	. .	167
1960	125.7	. .	. .	245
1961	129.5	. .	. .	252
1962	129.8	. .	. .	251
1963	133.0	. .	. .	252
1964	140.4	. .	. .	258
1965	144.3	. .	. .	268
1966	152.4	. .	. .	276
1967	159.3	. .	. .	286
1968	173.4	. .	. .	293
1969	183.6	. .	. .	302
1970	191.9	. .	. .	313
1971	218.0	. .	. .	332
1972	239.8	. .	. .	352
1973	275.1	. .	. .	385
1974	373.8	. .	. .	443
1975	416.8	. .	. .	510
1976	478.1	104.3	. .	579
1977	526.8	114.5	. .	650
1978	569.9	123.3	. .	702
1979	597.7	129.9	. .	766
1980	662.5	144.8	. .	844
1981	765.4	166.7	. .	926
1982	. .	185.4	. .	1,028
1983	. .	194.7	. .	1,132
1984	. .	203.2	. .	1,177
1985	. .	218.9	103.8	1,257
1986	. .	223.9	106.3	1,370
1987	. .	. .	111.3	1,487
1988	. .	. .	119.0	1,594
1989	. .	. .	126.1	1,714
1990	. .	. .	131.3	1,831
1991	. .	. .	135.9	1,898

(a) At 31 December. Base year 1954 = 100, weighted average for 'wage' earners only. Excludes rural industry. Series replaced by Award Rates of Pay Indexes from September 1982. (b) At 31 December. Base June 1976 = 100.0. Excludes ASIC Division A — Agriculture, forestry, fishing and hunting; ASIC subdivision 72 — Defence forces; and ASIC subdivision 94 — Private households employing staff. This series shows index numbers for both wage and salary earners (i.e., all employees). (c) At 31 December. Base June 1985 = 100.0. Excludes ASIC Division A — Agriculture, forestry, fishing and hunting; ASIC subdivision 72 — Defence forces; and ASIC subdivision 94 — Private households employing staff. This series shows index numbers for both wage and salary earners (i.e., all employees). (d) Base year 1945 = 100. The index numbers are presented as a continuous series, but they give only a broad indication of long-term trends in retail price levels. They are derived by linking a number of indexes that differ greatly in scope. The successive indexes used are: from 1901 to 1914, the 'A' Series Retail Price Index; from 1914 to 1946–47, the 'C' Series Retail Price Index; from 1946–47 to 1948–49, a composite of Consumer Price Index Housing Group (partly estimated) and 'C' Series Index excluding Rent; and from 1948–49 onwards, the Consumer Price Index.

Source: Australian Bureau of Statistics.

SOCIAL SECURITY PENSIONS AND BENEFITS

	Age and invalid pensions (incl. Wives' Allowance Pensions)			Family allowances		Widow's pensions		Unemployment benefit	
Year ended 30 June	Pensioners	Number of wives paid	Amount paid average	Number of children	Amount	Pensioners	Amount paid	Number on benefit—weekly average	Amount paid
	'000	'000	$ million	'000	$ million	'000	$ million	'000	$ million
1912	90	. .	4.3	. .	. .	. .	. .	. .	. .
1922	147	. .	10.8	. .	. .	. .	. .	. .	. .
1932	261	. .	22.3	. .	. .	. .	. .	. .	. .
1942	341	. .	38.5	910	22.6	. .	. .	. .	. .
1952	426	11	119.6	2,518	93.2	41	11.2	2	(a)
1960	619	13	294.0	3,252	125.1	52	24.3	21	9.0
1961	651	14	315.9	3,340	148.6	55	26.9	22	8.9
1962	691	14	360.5	3,420	132.8	57	30.7	53	25.3
1963	711	15	375.5	3,458	135.4	58	31.4	40	21.3
1964	725	16	399.9	3,631	168.8	62	41.6	26	13.5
1965	736	16	426.6	3,711	172.8	65	47.0	14	6.8
1966	744	17	442.4	3,763	176.4	69	50.0	15	7.8
1967	764	19	481.8	3,835	199.3	73	56.4	21	11.2
1968	797	19	514.0	3,891	187.9	75	61.1	21	11.2
1969	827	20	558.6	3,996	193.3	78	69.1	18	9.3
1970	913	23	642.0	4,079	220.1	87	81.8	13	8.9
1971	942	23	702.3	4,156	198.5	90	90.5	15	10.8
1972	972	24	818.5	4,235	216.6	93	104.6	29	26.0
1973	1,081	41	1,072.4	4,239	253.9	106	140.5	40	46.6
1974	1,184	47	1,372.4	4,261	225.4	115	181.0	34	58.2
1975	1,266	51	1,918.9	4,284	224.9	121	241.4	117	251.7
1976	1,342	59	2,536.4	4,293	265.5	129	325.3	192	513.9
1977	1,408	69	2,994.6	4,302	1,023.3	139	370.2	216	618.1
1978	1,469	78	3,532.3	4,304	1,038.1	150	439.5	266	794
1979	1,312	86	3,919.4	4,231	974.9	161	499.3	306	910.0
1980	1,551	91	4,305.1	4,224	1,035.4	166	561.4	306	925.2
1981	1,569	86	4,816.5	4,227	950.4	166	641.8	310	995.7
1982	1,584	82	5,484.1	4,254	1,041.8	164	717.4	332	1,224.3
1983	1,611	83	5,935.9	4,303.3	1,373.7	165	758.1	540	2,249.0
1984	1,599	92	6,566.3	4,325.9	1,506.3	163	829.5	620	2,912.3
1985	1,591	99	7,108.7	4,323.4	1,505.0	160	889.4	582	2,983.6
1986	1,598	107	7,570.7	n.a.	n.a.	156	924.5	559	3,122.1
1987	1,611	115	8,169.3	4,114.9	1,381.0	152	952.7	574	3,453.8
1988	1,626	117	9,161.2	3,796.7	1,355.6	87	505.1	503	3,374.9
1989	1,642	121	9,931.7	3,759.3	1,314.9	84	535.2	429	3,135.6
1990	1,657	124	10,862.2	2,672.5	1,810.3	79	553.7	385	3,067.8
1991	1,710	131	12,303.3	3,699.4	1,894.0	74	577.3	536	4,561.4

(a) Less than $0.05 million.

Source: Department of Social Security and Welfare.

FORESTRY

Year ended 30 June	*Sawn output of Australian grown timber*	*Wood chips(a)*	
		Hard wood(b)	*Soft wood(c)*
	'000 cubic metres	'000 tonnes	'000 tonnes
1902	(d)1,067	..	..
1912	(d)1,428	..	..
1922	1,392	..	..
1932	559	..	..
1942	2,157	..	..
1952	3,287	..	..
1961	3,346	..	..
1962	3,190	..	..
1963	3,341	..	..
1964	3,509	..	..
1965	3,615	..	..
1966	3,558	..	..
1967	3,448	..	..
1968	3,476	..	..
1969	(e)3,325	..	..
1970	(e)3,386	..	..
1971	3,438	..	..
1972	3,367	..	..
1973	3,408	2,361	84
1974	3,336	2,952	118
1975	3,230	3,009	137
1976	3,228	2,603	195
1977	3,164	3,623	269
1978	3,056	3,668	241
1979	3,110	3,800	229
1980	3,279	4,798	352
1981	3,407	4,410	588
1982	3,276	3,943	604
1983	2,984	4,031	635
1984	2,817	4,551	n.a.
1985	2,988	4,817	589
1986	(f)3,002	n.a.	n.a.
1987	3,065	5,287	489
1988	(f)3,183	n.a.	n.a.
1989	(a)3,194	n.a.	n.a.
1990	(a)3,152	5,113	718
1991	2,875	4,926	770

(a) *Source: Australian Bureau of Agricultural and Resource Economics.* (b) Broad leaved. (c) Coniferous. (d) Year ended previous December. (e) Excludes estimated quantity of timber from logs peeled or sliced for veneers. (f) *Source: Department of Primary Industries and Energy.*

Source: Australian Bureau of Statistics.

BUILDING

Year ended 30 June	New dwellings completed		Value of work done on all buildings(a)
	Number	Value	
	'000	$ million	$ million
1952	80.1	354.1	n.a.
1960	90.0	571.0	1,001.6
1961	94.5	627.4	1,130.8
1962	86.3	593.2	1,076.9
1963	87.7	610.2	1,140.7
1964	96.7	685.8	1,323.9
1965	112.7	823.0	1,555.9
1966	112.8	869.9	1,681.2
1967	111.9	914.8	1,745.4
1968	120.2	1,022.8	1,914.3
1969	130.7	1,182.1	2,195.4
1970	142.2	1,379.4	2,556.7
1971	142.1	1,478.9	2,815.6
1972	143.8	1,628.7	3,132.4
1973	150.6	1,845.5	3,542.4
1974	150.0	2,143.0	4,214.9
1975	141.1	2,454.2	4,713.3
1976	132.0	2,808.6	5,595.0
1977	144.8	3,635.1	6,445.5
1978	128.9	3,595.7	6,510.0
1979	117.1	3,529.7	6,946.4
1980	129.3	4,174.9	8,018.2
1981	135.9	4,875.8	10,026.3
1982	138.3	5,808.2	10,547.7
1983	115.7	5,177.9	10,550.6
1984	123.8	5,508.1	10,268.5
1985	142.4	6,659.0	14,022.8
1986	140.5	7,317.4	16,832.4
1987	119.8	6,796.7	17,755.5
1988	118.4	7,334.1	21,375.2
1989	150.3	10,460.1	27,454.7
1990	160.0	12,808.5	30,315.7
1991	134.5	11,656.9	27,029.7

(a) New residential, alterations and additions to residential and non-residential building by private contractors, government authorities and owner builders.

Source: Australian Bureau of Statistics.

ROAD TRANSPORT

		Motor vehicles on the register			
Year ended 30 June	*Tram, trolley-bus and bus services(a) Passenger journeys*	*Motor cars and station wagons*	*Commercial vehicles(b)*	*Motor cycles*	*Total motor vehicles (including motor cycles)*
	million	'000	'000	'000	'000
1902	n.a.	. .	. .	. .	. .
1912	360	n.a.	n.a.	n.a.	n.a.
1922	569	102	. .	38	139
1932	589	420	96	72	588
1942	(c)1,067	451	250	50	751
1952	1,019	1,028	588	155	1,770
1960	758	1,938	784	102	2,824
1961	726	2,070	800	93	2,963
1962	718	2,201	815	85	3,101
1963	712	2,377	832	77	3,286
1964	702	2,583	846	69	3,498
1965	685	2,792	858	65	3,715
1966	653	2,947	868	64	3,878
1967	621	3,104	880	69	4,053
1968	609	3,305	892	83	4,279
1969	590	3,499	911	98	4,508
1970	575	3,720	938	114	4,772
1971	561	3,935	961	144	5,039
1972	503	4,141	996	180	5,317
1973	521	4,362	1,041	210	5,613
1974	533	4,604	1,090	259	5,953
1975	531	4,859	1,140	278	6,277
1976	515	5,073	1,215	293	6,581
1977	514	5,243	1,280	296	6,818
1978	516	5,462	1,360	292	7,115
1979	(d)459	5,657	1,413	288	7,358
1980	(d)456	5,801	1,462	310	7,573
1981	(d)448	6,021	1,544	352	7,918
1982	(d)447	6,294	1,662	391	8,346
1983	(e)326	6,470	1,718	402	8,590
1984	n.a.	6,636	1,798	398	8,833
1985	454	6,843	1,887	389	9,119
1986	460	6,985	1,931	375	9,291
1987	464	7,073	1,950	351	9,374
1988	(d)388	7,244	1,978	323	9,545
1989	(d)494	7,442	2,047	317	9,806
1990	473	7,672	2,104	304	10,080
1991	n.y.a.	7,734	1,915	285	9,934

(a) Government and municipal trolley-bus services ceased in August 1969. (b) Open and closed light commercial type vehicles, utilities and panel vans, rigid and articulated trucks, other truck type vehicles and buses. (c) Tram passenger journeys only before 1942. (d) Excludes details for South Australia which are no longer separately identifiable from the railway operation of the State Transport Authority. (e) Excludes details for Victoria and South Australia.

Source: Australian Bureau of Statistics.

GOVERNMENT RAILWAYS(a)

Year ended 30 June	*Route-kilometres(b)*	*Train-kilometres*	*Passenger journeys*	*Freight tonnes carried*	*Freight net tonne-kilometres*
	'000	million	million	million	million
1902	20.6	61.5	115	15.7	n.a.
1912	27.0	88.8	228	25.9	n.a.
1922	37.7	90.3	335	32.0	n.a.
1932	43.5	102.7	303	26.5	n.a.
1942	43.8	142.4	475	39.5	n.a.
1952	43.1	150.3	501	45.0	11,046
1960	42.2	140.2	479	52.0	13,091
1961	42.0	149.7	463	56.3	14,370
1962	41.2	149.0	461	56.5	14,427
1963	41.0	149.6	465	56.8	15,131
1964	40.5	155.3	471	62.7	17,170
1965	40.3	155.5	464	65.9	18,224
1966	40.2	151.7	460	65.5	18,050
1967	40.3	150.8	455	69.6	18,832
1968	40.5	152.1	453	72.2	20,054
1969	40.4	151.0	447	77.0	21,463
1970	40.3	156.3	450	83.7	23,973
1971	40.3	156.3	453	87.3	25,206
1972	40.3	153.7	404	88.7	25,403
1973	40.5	152.0	373	92.5	26,582
1974	40.4	151.2	373	97.0	28,329
1975	40.6	150.6	361	103.5	29,792
1976	40.8	150.1	338	104.4	30,809
1977	40.1	151.1	332	109.9	31,995
1978	39.7	148.8	323	107.3	31,837
1979	39.4	147.5	375	111.1	32,056
1980	39.5	150.9	401	125.7	36,366
1981	39.1	147.1	412	127.3	36,468
1982	38.9	150.5	412	127.3	37,332
1983	39.1	147.8	413	124.1	34,494
1984	39.3	149.9	(c)	142.2	39,448
1985	39.2	n.a.	(d)	160.1	44,972
1986	38.7	n.a.	377.5	171.8	48,045
1987	38.5	n.a.	388.6	174.7	48,935
1988	38.2	n.a.	405.7	173.4	49,730
1989	35.8	n.a.	417.6	178.8	50,764
1990	35.5	n.a.	413.8	185.5	53,338

(a) Particulars of train-kilometres, passenger journeys, freight tonnes carried, and freight net tonne-kilometres refer only to operations for which revenue is received. (b) At end of period. (c) Refer to *Year Book Australia 1986* (1301.0). (d) Refer to *Year Book Australia 1987* (1301.0).

Source: Various rail authorities, the Rail Industry Council and the Australian Bureau of Statistics.

REGULAR INTERNAL AIR SERVICES

	Passengers			*Freight*		*Mail*	
	Kilometres flown	*Embark-ations*	*Passenger kilometres*	*Tonnes uplifted*	*Tonnes-kilometres*	*Tonnes uplifted*	*Tonnes-kilometres*
	million	'000	million	'000	million	'000	million
1932	1.4	6	5	n.a.	n.a.	n.a.	n.a.
1942	12.6	151	122	1.2	1.5	n.a.	0.7
1952	67.3	1,829	1,162	52.2	39.0	2.4	1.9
1960	69.5	2,660	1,823	59.3	42.6	4.4	3.8
1961	68.1	2,639	1,786	57.2	41.2	5.4	4.5
1962	66.3	2,666	1,802	51.9	38.1	5.7	4.7
1963	70.3	2,833	1,965	53.9	41.3	5.9	4.9
1964	78.8	3,257	2,266	57.3	44.5	6.4	5.5
1965	84.2	3,764	2,638	63.5	49.5	7.0	5.9
1966	88.5	4,158	2,947	69.0	54.9	7.8	6.7
1967	91.3	4,425	3,174	74.4	58.6	8.7	7.5
1968	91.3	4,668	3,420	77.2	61.8	8.5	7.6
1969	97.1	5,185	3,865	81.6	66.5	9.0	8.0
1970	106.6	5,911	4,511	90.8	74.5	9.6	8.7
1971	114.6	6,340	4,974	91.4	78.0	9.9	9.3
1972	113.0	6,629	5,134	89.9	74.2	10.1	9.3
1973	118.6	7,503	5,685	94.4	81.5	10.1	9.8
1974	131.8	8,858	6,812	112.7	98.3	9.9	9.3
1975	135.5	9,393	7,374	107.8	97.9	9.6	9.0
1976	130.1	9,315	7,281	106.1	97.5	9.7	9.1
1977	122.9	9,349	7,330	108.1	96.3	9.6	9.1
1978	134.7	10,289	8,181	120.9	106.5	11.3	10.7
1979	135.4	10,724	8,619	127.5	110.7	13.1	12.5
1980	138.2	11,505	9,486	129.8	109.6	15.1	14.2
1981	137.3	11,381	9,747	125.0	107.9	17.3	16.4
1982	136.8	11,397	10,155	136.3	117.9	16.8	16.5
1983	128.0	10,333	9,327	141.9	124.8	16.8	17.2
1984	126.1	10,598	9,685	149.9	137.8	17.6	17.6
1985	132.1	11,330	10,398	151.2	135.6	18.4	18.6
1986	143.1	12,100	11,293	150.5	138.6	18.1	18.2
1987	152.1	12,507	12,047	135.6	127.4	18.7	19.1
1988	160.2	13,648	13,267	143.3	136.3	20.8	20.9
1989	169.9	14,012	13,733	147.9	139.4	21.8	22.6
1990	n.a.	9,878	9,954	n.a.	n.a.	n.a.	n.a.

Source: Department of Transport and Communications.

FINANCIAL INSTITUTIONS
($ million)

		All banks(a)			
June	*Australian notes on issue*	*Total deposits*	*Total liabilities(b)*	*Total loans, advances and bills held*	*Total assets*
1975	2,518	27,810	30,611	17,794	31,620
1976	2,920	31,783	34,923	20,611	35,921
1977	3,293	35,461	38,997	23,226	40,425
1978	3,688	37,798	41,984	26,174	43,715
1979	4,108	42,018	47,903	29,679	50,190
1980	4,586	46,912	53,975	34,026	56,760
1981	5,184	52,533	62,018	37,388	64,943
1982	5,795	58,560	72,101	43,136	75,406
1983	6,301	66,063	84,014	49,326	87,472
1984	7,165	72,870	95,623	55,063	100,230
1985	8,141	86,156	112,437	68,684	120,169
1986	8,890	96,950	(c)139,400	82,967	(d)151,248
1987	9,801	109,271	169,651	98,749	182,703
1988	11,135	123,218	204,256	117,826	226,303
1989	12,159	159,307	258,681	(e)167,322	(f)283,673
1990	12,837	183,430	295,776	201,496	(g)325,848
1991	14,621	195,041	322,517	225,272	354,261

(a) Excludes the Reserve Bank. Includes the Primary Industries Bank of Australia from 1988 and the Commonwealth Development Bank and Australian Resources Development Bank from 1989. From June 1985 inclusive, the establishment of new banks may have caused the switching of liabilities and assets from non-bank financial intermediaries to banks. Data prior to 1990 show liabilities and assets within Australia. After this date they show liabilities and assets recorded on banks' Australian books. (b) Excludes shareholders' funds. (c) Total liabilities excludes foreign currency liabilities prior to 1986. (d) Break in asset series due to reclassification of lending products of banks. (e) Break in series due to the introduction of new statistical forms. (f) Prior to 1989, excludes non-resident $A assets and prior to 1986, excludes foreign currency assets. (g) Prior to 1990, excludes non-resident foreign currency assets.

Source: Reserve Bank of Australia.

BALANCE OF PAYMENTS
CURRENT TRANSACTIONS
($ million)

	Merchandise						
	Exports f.o.b.	*Imports f.o.b.*	*Balance on merchandise trade*	*Net services*	*Net income*	*Net unrequited transfers*	*Balance on current account*
1959–60	1,898	–1,820	78	–218	–305	–26	–471
1960–61	1,884	–2,060	–176	–249	–301	–22	–748
1961–62	2,165	–1,705	460	–186	–262	–20	–8
1962–63	2,158	–2,070	88	–201	–333	–22	–468
1963–64	2,764	–2,242	522	–219	–360	–13	–70
1964–65	2,605	–2,743	–138	–268	–355	–19	–780
1965–66	2,655	–2,826	–171	–292	–388	–38	–889
1966–67	2,954	–2,841	113	–314	–414	–44	–659
1967–68	2,968	–3,164	–196	–360	–551	–24	–1,131
1968–69	3,242	–3,207	35	–403	–603	–9	–980
1969–70	3,998	–3,561	437	–416	–697	–12	–688
1970–71	4,244	–3,806	438	–455	–704	–28	–749
1971–72	4,746	–3,814	932	–491	–708	–26	–293
1972–73	6,027	–3,817	2,210	–585	–783	–88	754
1973–74	6,754	–5,767	987	–990	–738	–180	–921
1974–75	8,512	–7,665	847	–1,119	–723	–200	–1,195
1975–76	9,476	–7,930	1,546	–1,250	–1,393	–326	–1,423
1976–77	11,446	–10,350	1,096	–1,638	–1,605	–298	–2,445
1977–78	12,006	–11,149	857	–1,820	–1,770	–257	–2,990
1978–79	14,072	–13,385	687	–1,792	–2,179	–340	–3,624
1979–80	18,589	–15,831	2,758	–1,890	–2,727	–135	–1,994
1980–81	18,718	–19,177	–459	–2,107	–2,759	–140	–5,465
1981–82	19,080	–22,368	–3,288	–2,409	–3,208	–192	–9,097
1982–83	20,656	–21,705	–1,049	–2,762	–2,788	–195	–6,794
1983–84	23,682	–23,497	185	–2,782	–4,883	115	–7,365
1984–85	29,212	–30,093	–881	–3,869	–6,792	198	–11,344
1985–86	32,208	–35,676	–3,468	–3,926	–7,928	709	–14,613
1986–87	35,423	–37,159	–1,736	–3,102	–8,696	1,213	–12,321
1987–88	40,541	–40,386	155	–2,553	–10,507	1,664	–11,241
1988–89	43,073	–47,032	–3,959	–3,111	–13,622	2,198	–18,494
1989–90	47,815	–50,991	–3,176	–4,353	–17,040	2,346	–22,223
1990–91	51,822	–49,257	2,565	–3,337	–17,306	2,486	–15,592

Source: Australian Bureau of Statistics.

BALANCE OF PAYMENTS
NET CAPITAL TRANSACTIONS
($ million)

	Official		*Non-official*			
Year	*General government*	*Reserve Bank*	*Foreign investment in Australia*	*Australian investment abroad*	*Balancing item*	*Balance on capital account*
1959–60	52	–38	394	–15	78	393
1960–61	–10	81	475	–17	220	528
1961–62	1	–178	302	–81	–36	44
1962–63	54	–145	468	2	89	379
1963–64	–46	–452	460	12	95	–25
1964–65	–32	298	596	–73	–8	788
1965–66	5	–56	701	10	228	661
1966–67	–13	123	523	–123	149	510
1967–68	198	–79	1,006	1	6	1,125
1968–69	26	–152	1,002	–22	126	854
1969–70	–162	–38	1,044	–202	46	642
1970–71	–71	–598	1,569	–124	–28	777
1971–72	–82	–1,478	1,491	–119	481	–188
1972–73	–62	–1,070	600	–203	–18	–736
1973–74	54	396	708	–379	142	779
1974–75	–22	442	1,132	–285	–72	1,267
1975–76	–49	1,034	829	–191	–199	1,622
1976–77	245	504	1,730	–191	157	2,288
1977–78	1,506	567	1,422	–605	100	2,890
1978–79	1,367	125	2,143	–375	364	3,260
1979–80	–36	266	3,151	–1,293	–94	2,088
1980–81	–39	–1,148	6,195	–510	967	4,498
1981–82	463	–1,360	9,956	–729	766	8,331
1982–83	809	–2,423	9,390	–1,450	468	6,326
1983–84	820	–1,868	8,875	–2,105	1,643	5,722
1984–85	3,743	1,510	11,014	–4,335	–588	11,932
1985–86	5,626	2,124	14,171	–6,789	–519	15,132
1986–87	5,866	–3,376	16,383	–9,138	2,586	9,735
1987–88	4,702	–3,932	23,473	–12,993	–9	11,250
1988–89	2,674	–873	28,174	–11,417	–64	18,558
1989–90	2,574	–2,132	17,796	–3,703	7,688	14,535
1990–91	–1,829	–1,468	18,109	–1,486	2,266	13,326

Source: Australian Bureau of Statistics.

FOR MORE INFORMATION

The ABS has a far wider range of information on Australia than that contained in the *Year Book.* Information is available in the form of regular publications, electronic data services, special tables and from investigations of published and unpublished data.

For further information contact ABS Information Services at one of the addresses listed on the page facing the Introduction to the *Year Book.*

International Comparisons

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NOTE: The statistics for Germany in these tables refer to *western Germany* (Federal Republic of Germany before the unification of Germany), except where otherwise indicated.

The tables in this section provide a historical series since 1969-70 of selected economic data for various countries.

Footnotes indicate the main differences in the bases of the figures for the countries concerned. However, other fundamental differences between the economic circumstances and statistical methodology may also operate against precise comparability. Nevertheless the figures provide a useful general comparison.

The annual figures shown in the historical series are generally derived from monthly or quarterly series, which are available from the sources shown for respective tables.

REAL GROSS DOMESTIC PRODUCT VOLUME INDEX(a)
(Base year: 1985 = 100.0)

Period	*United States*	*Japan*	*Germany*	*France*	*Italy*	*United Kingdom*	*Canada*	*OECD Major 7*	*Australia*
1969–70	66.7	50.7	70.6	65.0	62.0	73.9	54.9	63.8	60.8
1970–71	67.7	54.4	73.4	68.6	64.3	75.6	56.5	65.8	63.7
1971–72	69.9	57.7	75.4	71.9	65.7	78.1	60.6	68.3	66.6
1972–73	74.4	63.0	79.6	75.2	68.1	82.4	64.5	72.7	69.4
1973–74	76.0	64.5	81.7	78.8	74.5	84.2	68.4	74.9	72.4
1974–75	74.1	65.0	80.2	79.4	73.7	84.4	70.4	74.1	73.5
1975–76	76.6	67.8	82.4	81.1	75.0	84.8	73.8	76.3	75.3
1976–77	79.6	70.7	85.6	84.3	80.3	87.2	77.3	79.5	77.7
1977–78	83.8	74.0	87.9	86.9	81.2	89.4	80.4	82.8	78.4
1978–79	87.6	78.0	91.5	89.8	85.8	92.2	84.0	86.5	82.4
1979–80	88.4	81.7	94.6	92.4	91.6	92.3	86.3	88.5	84.1
1980–81	88.9	84.4	94.2	92.8	92.6	90.6	88.6	89.3	87.0
1981–82	88.7	87.1	94.1	95.3	93.6	90.7	88.7	89.9	88.9
1982–83	88.1	89.9	93.8	96.7	93.6	93.0	87.3	90.3	87.4
1983–84	94.1	93.2	96.2	97.4	96.0	96.0	92.6	94.6	92.7
1984–85	98.3	97.4	99.0	98.7	98.6	98.1	97.8	98.2	97.5
1985–86	101.7	101.4	101.1	101.4	101.4	101.6	102.2	101.6	101.4
1986–87	104.0	104.5	102.8	103.4	103.8	106.2	104.7	104.1	104.0
1987–88	108.8	110.5	105.4	107.1	107.9	111.4	110.6	108.9	108.8
1988–89	112.6	116.3	109.5	111.4	111.8	114.9	114.2	113.1	112.9
1989–90	114.4	122.8	113.5	115.3	114.9	117.2	116.1	116.2	117.0
1990–91	114.4	129.3	119.3	117.3	116.4	115.2	114.7	117.8	115.8

(a) Data for the United States, Japan and the Federal Republic of Germany measure real gross national product.
Source: Organisation for Economic Co-operation and Development (OECD) and Australian Bureau of Statistics (ABS).

BALANCE ON CURRENT ACCOUNT: PERCENTAGE OF SEASONALLY ADJUSTED GDP(a)

Period	*United States*	*Japan*	*Germany (b)*	*France*	*Italy*	*United Kingdom*	*Canada*	*Australia*
1969–70	0.2	1.0	0.7	—	—	1.5	−0.2	−2.2
1970–71	0.1	1.5	0.7	0.0	—	1.4	1.3	−2.1
1971–72	−0.4	2.4	0.1	0.3	2.1	1.5	−0.3	−0.8
1972–73	−0.1	1.4	0.8	0.5	−0.5	−0.7	0.0	1.7
1973–74	0.6	−1.4	2.2	−0.9	−3.3	−3.0	−0.1	−1.7
1974–75	0.6	0.0	2.0	0.1	−1.7	−2.7	−2.2	−1.8
1975–76	0.8	0.3	0.8	0.0	−1.5	−0.9	−2.5	−1.9
1976–77	−0.3	0.9	0.9	−0.9	−0.4	−1.2	−1.9	−2.8
1977–78	−0.9	2.0	1.0	0.8	1.8	0.5	−1.8	−3.1
1978–79	−0.2	0.5	0.7	1.4	2.4	0.0	−2.3	−3.3
1979–80	−0.1	−1.8	−1.6	0.0	−0.9	−0.1	−1.2	−1.6
1980–81	0.3	−0.1	−1.9	−0.6	−2.9	3.3	−0.8	−3.9
1981–82	0.1	0.6	0.2	−1.7	−1.5	1.4	−0.8	−5.8
1982–83	−0.8	1.1	1.0	−2.0	−0.6	1.5	1.2	−4.0
1983–84	−2.3	2.2	0.6	−0.3	−0.1	0.9	0.1	−3.8
1984–85	−2.9	3.2	2.1	−0.1	−1.1	0.6	0.7	−5.3
1985–86	−3.0	3.9	3.5	0.2	−0.3	0.9	−1.5	−6.1
1986–87	−3.3	4.2	4.5	0.0	0.5	−0.4	−1.7	−4.6
1987–88	−2.8	3.0	4.0	−0.3	−0.6	−2.2	−1.8	−3.8
1988–89	−2.4	2.5	4.9	−0.4	−1.3	−3.8	−2.5	−5.4
1989–90	−1.8	1.7	4.2	−0.6	−1.3	−4.0	−3.4	−6.0
1990–91	—	1.4	0.3	−0.8	—	−1.3	−3.2	−4.2

(a) Statistics are calculated as the original balance on current account as percentage of the seasonally adjusted current price gross domestic product, except for the United States, Japan and Germany, where real gross national product replaces gross domestic product. (b) From July 1990, balance on current account data refer to Germany after unification.
Source: Organisation for Economic Co-operation and Development (OECD) and Australian Bureau of Statistics (ABS).

BALANCE ON MERCHANDISE TRADE(a)

($US million)

Period	United States	Japan	Germany (b)	France	Italy	United Kingdom	Canada	Australia	New Zealand
1969–70	n.a.	535	4,392	n.a.	–1,527	–1,985	1,539	379	112
1970–71	n.a.	1,785	4,674	471	–1,631	–3,151	2,836	349	–39
1971–72	n.a.	5,142	5,576	1,038	–249	–2,898	1,573	1,134	168
1972–73	n.a.	2,916	8,754	1,736	–3,102	–5,586	1,902	2,805	509
1973–74	n.a.	–7,441	19,429	–1,100	–9,003	–13,522	1,688	1,354	–325
1974–75	–4,943	–1,979	19,994	–239	–6,507	–13,102	–905	1,052	–1,526
1975–76	–2,798	–280	13,774	–955	–5,472	–9,360	–471	1,996	–619
1976–77	–27,173	4,478	15,721	–4,896	–5,517	–10,577	1,682	1,476	–241
1977–78	–45,566	15,459	19,074	–314	–336	–6,397	2,872	1,253	56
1978–79	–37,488	7,144	20,355	471	–1,623	–10,842	1,926	494	225
1979–80	–45,527	–16,747	6,756	–9,482	–12,926	–12,067	4,065	2,861	–2
1980–81	–31,296	1,010	5,164	–11,366	–23,423	3,103	5,119	189	60
1981–82	–37,511	10,413	20,267	–11,959	–13,378	–5,441	7,839	–3,809	–442
1982–83	–53,506	12,596	20,635	–12,499	–9,894	–3,861	14,371	823	277
1983–84	–102,124	26,712	15,231	–3,852	–8,823	–8,738	11,292	441	–303
1984–85	–134,021	37,992	22,829	–2,407	–13,235	–10,399	13,672	630	–559
1985–86	–152,483	64,087	38,946	–2,142	–7,278	–11,503	6,916	–1,279	–463
1986–87	–166,001	89,137	61,407	–2,842	–4,066	–20,911	6,819	–896	184
1987–88	–155,222	73,749	68,785	–3,616	–8,100	–34,132	4,684	212	513
1988–89	–131,541	77,747	73,952	–6,745	–13,193	–49,164	4,899	–2,892	1,460
1989–90	–124,274	56,755	78,877	–6,654	–10,887	–41,606	6,059	–1,517	–471
1990–91	–104,929	58,454	40,087	–10,795	–11,870	–31,514	11,847	2,895	421

(a) All series are exports (f.o.b.) less imports (c.i.f.), except France, Canada and Australia where imports are also f.o.b.. Data are measured on a foreign trade basis. (b) Excludes trade with the German Democratic Republic. From July 1990, data refer to Germany after unification.

Source: Organisation for Economic Co-operation and Development (OECD).

PRIVATE CONSUMPTION EXPENDITURE VOLUME INDEX

(Base year: 1985 = 100)

Period	United States	Japan	Germany	France	Italy	United Kingdom	Canada	Australia
1969–70	63	52	68	—	—	71	54	59
1970–71	64	55	73	66	61	73	56	62
1971–72	67	59	76	69	63	77	60	64
1972–73	71	65	80	73	67	82	65	68
1973–74	71	68	80	75	71	82	69	72
1974–75	72	69	82	76	71	82	72	73
1975–76	75	71	85	80	73	81	76	76
1976–77	78	74	88	83	77	82	80	78
1977–78	82	77	92	86	79	84	83	79
1978–79	84	83	96	88	84	89	85	82
1979–80	85	86	97	90	90	90	87	84
1980–81	86	86	98	91	93	90	90	87
1981–82	86	89	97	94	94	90	89	91
1982–83	89	93	96	96	95	93	89	92
1983–84	94	96	98	97	96	96	93	94
1984–85	98	98	99	98	98	98	97	98
1985–86	102	102	102	102	102	103	102	101
1986–87	106	106	105	105	106	109	107	102
1987–88	109	111	108	109	110	116	111	106
1988–89	112	116	111	112	115	123	116	110
1989–90	114	121	114	116	119	125	118	115
1990–91	114	125	119	118	—	125	118	116

Source: Organisation for Economic Co-operation and Development (OECD).

PRIVATE FIXED CAPITAL INVESTMENT VOLUME INDEX(a)
(Base year: 1985 = 100)

Period	*United States*	*Japan*	*Germany*	*France*	*Italy*	*United Kingdom*	*Canada*	*Australia*
1969–70	60	60	89	—	—	85	47	64
1970–71	61	64	98	86	85	86	48	69
1971–72	67	64	101	92	85	87	52	70
1972–73	75	72	103	99	88	90	55	72
1973–74	75	77	96	105	97	91	62	75
1974–75	66	69	88	100	91	90	64	64
1975–76	66	71	88	99	87	89	70	69
1976–77	73	71	92	99	90	88	72	74
1977–78	82	72	94	100	89	91	73	72
1978–79	88	78	101	102	92	91	78	79
1979–80	87	82	108	107	101	93	88	81
1980–81	82	83	104	105	103	83	100	92
1981–82	79	84	98	104	98	81	99	98
1982–83	75	84	97	102	94	87	88	82
1983–84	89	87	99	98	97	93	91	85
1984–85	98	95	100	97	99	99	94	96
1985–86	101	103	102	103	100	99	105	99
1986–87	101	109	104	106	104	106	111	98
1987–88	106	124	108	114	111	121	129	112
1988–89	110	140	114	124	118	133	139	131
1989–90	111	157	124	131	122	136	140	126
1990–91	107	173	134	132	—	124	128	112

(a) Fixed capital investment volume indexes for Germany, France, Italy and the United Kingdom are for gross domestic fixed investment.

Source: Organisation for Economic Co-operation and Development (OECD).

INDUSTRIAL PRODUCTION VOLUME INDEX
(Base year: 1985 = 100.0)

Period	*United States*	*Japan*	*Germany*	*France*	*Italy*	*United Kingdom*	*Canada*	*OECD Major 7*	*Australia*
1969–70	66.6	53.6	77.7	72.0	70.0	83.1	62.1	67.0	n.a.
1970–71	64.9	57.4	80.0	76.2	72.7	83.4	62.1	67.7	n.a.
1971–72	68.7	59.2	80.8	81.2	74.5	82.3	67.6	70.4	n.a.
1972–73	75.6	67.1	85.7	86.1	78.8	89.5	75.2	77.1	n.a.
1973–74	78.3	72.2	87.9	91.1	88.9	90.8	80.8	81.0	n.a.
1974–75	72.7	62.9	82.6	86.9	82.2	88.8	76.7	75.0	78.6
1975–76	73.5	64.1	84.0	87.8	83.2	85.6	76.9	75.6	77.8
1976–77	79.9	69.9	88.4	93.4	92.1	91.2	81.2	81.7	80.8
1977–78	84.8	72.2	89.1	93.6	88.9	93.3	83.1	84.3	81.1
1978–79	90.1	77.7	93.0	97.1	95.1	97.7	87.8	89.4	84.3
1979–80	90.1	83.8	96.4	102.3	103.4	97.4	87.8	91.8	86.9
1980–81	89.7	83.7	93.7	100.8	102.4	88.9	87.7	90.3	88.9
1981–82	89.5	86.2	93.4	101.2	100.6	90.6	83.9	90.6	90.7
1982–83	86.2	85.8	90.4	99.4	95.9	92.4	79.4	88.2	86.6
1983–84	95.3	92.5	93.8	99.6	97.2	95.8	90.4	94.8	89.7
1984–85	99.4	98.9	98.4	99.5	100.0	96.8	97.8	98.9	95.8
1985–86	100.5	100.1	101.7	100.6	101.9	101.0	100.4	100.7	101.1
1986–87	102.7	100.2	102.2	101.6	105.2	103.7	100.2	102.2	100.8
1987–88	109.0	108.4	104.0	105.0	110.3	108.0	108.1	108.0	108.0
1988–89	113.7	116.9	108.8	110.0	115.8	109.8	110.2	113.2	112.5
1989–90	114.9	121.5	114.1	112.9	118.8	110.6	107.5	115.6	118.7
1990–91	114.2	128.2	120.3	113.9	116.5	106.8	101.8	116.6	116.3

Source: Organisation for Economic Co-operation and Development (OECD) and Australian Bureau of Statistics (ABS).

CONSUMER PRICE INDEX (ALL ITEMS)
(Base year: 1985 = 100.0)

Period	United States	Japan	Germany	France	Italy	United Kingdom	Canada	OECD Major 7	Australia	New Zealand
1969–70	35.1	—	49.3	24.5	14.1	18.9	31.9	31.1	24.4	16.8
1970–71	36.9	38.1	51.4	25.8	14.8	20.5	32.6	32.8	25.6	18.4
1971–72	38.3	40.2	54.2	27.3	15.5	22.2	34.0	34.4	27.3	20.1
1972–73	39.8	43.0	57.6	29.1	16.7	23.9	35.9	36.3	29.0	21.3
1973–74	43.3	51.1	61.8	32.1	19.0	26.8	39.3	40.2	32.8	23.4
1974–75	48.1	60.5	65.7	36.5	23.2	32.2	43.8	45.7	38.2	26.5
1975–76	51.6	66.2	69.3	40.1	26.4	39.4	48.0	49.9	43.2	30.8
1976–77	54.6	72.4	71.9	44.0	31.4	45.6	51.2	54.1	49.2	35.5
1977–78	58.2	76.5	74.3	48.1	35.7	50.9	55.7	58.1	53.8	40.5
1978–79	63.7	79.3	76.4	52.8	40.2	55.4	60.8	62.9	58.2	45.0
1979–80	72.2	84.0	80.5	59.3	47.7	65.7	66.4	70.4	64.1	52.6
1980–81	80.5	89.7	85.0	67.1	57.2	74.9	74.2	78.3	70.2	60.9
1981–82	87.5	92.9	90.3	76.4	66.8	83.0	83.0	85.3	77.5	70.6
1982–83	91.2	95.1	94.2	83.7	77.7	87.7	90.0	90.1	86.3	79.8
1983–84	94.6	96.9	96.9	91.3	87.4	92.1	94.4	94.2	92.3	83.3
1984–85	98.3	99.0	99.0	97.4	95.8	97.2	98.0	98.2	96.3	93.0
1985–86	101.2	100.6	100.2	101.4	103.4	101.9	102.0	101.3	104.3	105.7
1986–87	103.4	100.4	99.7	104.2	108.1	105.5	106.4	103.3	114.1	123.3
1987–88	107.7	101.0	100.6	107.1	113.7	109.8	110.9	106.7	122.4	136.0
1988–89	112.7	102.4	102.7	110.6	120.0	117.4	115.7	111.0	131.4	142.4
1989–90	118.0	105.3	105.5	114.3	127.6	127.0	121.7	116.1	141.9	152.7
1990–91	124.5	108.8	108.5	118.2	136.0	138.1	128.3	122.0	149.4	159.2

Source: Organisation for Economic Co-operation and Development (OECD) and Australian Bureau of Statistics (ABS).

PRODUCER PRICES INDEX(a)
(Base year: 1985 = 100)

Period	United States	Japan	Germany	France	Italy	United Kingdom	Canada	OECD Major 7	Australia	New Zealand
1969–70	37	51	51	—	—	18	30	—	25	16
1970–71	38	52	54	—	—	20	31	—	26	17
1971–72	39	51	55	—	—	21	32	—	27	18
1972–73	41	55	58	—	—	23	34	—	29	20
1973–74	46	69	64	—	—	27	39	—	32	21
1974–75	53	77	70	—	—	34	46	—	38	24
1975–76	57	79	71	—	—	41	49	—	43	30
1976–77	60	83	74	—	—	48	52	—	47	35
1977–78	64	84	75	—	—	54	56	—	51	41
1978–79	70	83	76	—	—	59	63	—	57	46
1979–80	79	94	82	—	—	68	72	—	66	55
1980–81	89	101	87	68	—	75	81	—	73	65
1981–82	94	101	92	78	72	82	88	—	79	75
1982–83	97	101	95	84	80	87	92	94	86	80
1983–84	98	101	97	92	89	92	95	97	91	83
1984–85	100	101	99	99	97	97	99	99	97	95
1985–86	100	98	99	99	101	102	101	100	103	102
1986–87	99	93	97	97	101	106	102	99	110	108
1987–88	102	93	98	100	105	111	106	101	118	114
1988–89	106	93	101	107	110	116	110	105	126	119
1989–90	111	95	103	107	116	122	110	108	134	128
1990–91	116	97	105	107	120	130	111	112	140	129

(a) All series represent producer prices in manufacturing goods except the United States (finished goods), Japan (all items), Germany (all items), France (intermediate goods) and Italy (wholesale price index total).

Source: Organisation for Economic Co-operation and Development (OECD).

WAGES INDEX(a)
(Base year: 1985 = 100)

Period	*United States*	*Japan*	*Germany*	*France*	*Italy*	*United Kingdom(b)*	*Canada (c)*	*OECD Major 7*	*Australia*	*New Zealand*
1969–70	34	22	36	15	7	14	25	26	n.a.	n.a.
1970–71	36	26	40	17	9	16	27	28	n.a.	n.a.
1971–72	39	29	44	18	9	17	29	31	n.a.	n.a.
1972–73	42	34	49	21	11	20	32	35	n.a.	n.a.
1973–74	44	43	53	24	14	22	35	39	n.a.	n.a.
1974–75	49	52	59	29	17	28	41	45	n.a.	n.a.
1975–76	53	58	63	33	21	34	47	49	n.a.	n.a.
1976–77	57	65	67	38	27	38	52	55	49	n.a.
1977–78	62	69	72	43	32	42	57	59	53	n.a.
1978–79	68	73	75	48	37	49	61	64	57	52
1979–80	73	79	79	55	45	57	67	70	62	61
1980–81	80	84	84	63	54	66	75	77	69	73
1981–82	87	89	89	73	65	74	84	83	78	86
1982–83	91	92	92	82	75	81	91	89	88	89
1983–84	94	95	94	91	86	88	94	93	93	90
1984–85	98	98	98	97	95	96	98	98	98	95
1985–86	101	101	102	102	103	104	102	102	103	109
1986–87	103	102	106	106	108	112	104	104	108	122
1987–88	105	105	110	109	115	121	108	108	113	132
1988–89	108	110	115	113	122	132	114	113	120	139
1989–90	112	117	120	117	130	143	n.y.a.	119	127	145
1990–91	116	122	128	122	n.y.a.	156	n.y.a.	125	133	150

(a) For Germany, France and Italy, data represent hourly wage rates in manufacturing. For Australia and New Zealand, hourly wage rates are based on all industries. Data on earnings, rather than wage rates, are provided for the United States (hourly), Japan (monthly), the United Kingdom (weekly), Canada (hourly) and OECD Major 7 (hourly). (b) Excludes Northern Ireland. (c) Seasonally adjusted.
Source: Organisation for Economic Co-operation and Development (OECD) and Australian Bureau of Statistics (ABS).

EMPLOYMENT INDEX(a)
(Base year: 1985 = 100)

Period	*United States*	*Japan*	*Germany*	*France*	*Italy*	*United Kingdom*	*Canada*	*OECD Major 7*	*Australia*	*New Zealand*
1969–70	73	87	n.a.	n.a.	93	101	69	n.a.	n.a.	84
1970–71	73	88	n.a.	n.a.	94	101	71	n.a.	n.a.	86
1971–72	75	88	n.a.	n.a.	92	99	73	n.a.	n.a.	87
1972–73	78	90	n.a.	n.a.	92	101	76	n.a.	n.a.	89
1973–74	81	91	n.a.	n.a.	94	102	79	n.a.	n.a.	92
1974–75	80	90	n.a.	n.a.	95	103	81	n.a.	n.a.	94
1975–76	82	90	n.a.	n.a.	95	102	83	n.a.	n.a.	95
1976–77	84	91	n.a.	n.a.	97	101	84	n.a.	n.a.	96
1977–78	88	93	n.a.	n.a.	97	102	87	n.a.	n.a.	96
1978–79	91	94	n.a.	n.a.	98	103	90	n.a.	90	97
1979–80	93	95	n.a.	n.a.	99	104	93	n.a.	93	—
1980–81	93	96	n.a.	102	100	100	96	n.a.	95	96
1981–82	93	97	101	101	99	98	96	97	96	97
1982–83	93	98	100	101	99	96	93	96	95	97
1983–84	96	99	99	101	99	98	96	98	95	96
1984–85	99	100	100	100	100	100	98	100	98	99
1985–86	101	100	101	100	101	100	102	101	102	100
1986–87	104	101	102	100	101	101	104	102	105	98
1987–88	106	103	103	101	101	104	108	104	108	98
1988–89	109	104	104	102	102	108	110	106	113	97
1989–90	110	107	106	103	102	110	112	108	117	94
1990–91	109	109	108	n.y.a.	104	108	111	108	117	92

(a) All series are total employment except the United States, France, Canada and Australia, which are civilian employment.
Source: Organisation for Economic Co-operation and Development (OECD) and Australian Bureau of Statistics (ABS).

UNEMPLOYMENT RATES(a)
(per cent)

Period	United States	Japan	Germany	France	Italy	United Kingdom	Canada	OECD Major 7	Australia	New Zealand (b)
1969–70	4.8	1.1	n.a.	n.a.	5.2	n.a.	6.0	n.a.	n.a.	n.a.
1970–71	5.8	1.2	n.a.	n.a.	5.2	3.6	6.1	n.a.	n.a.	n.a.
1971–72	5.5	1.4	n.a.	n.a.	6.1	4.0	6.2	n.a.	n.a.	n.a.
1972–73	4.8	1.4	n.a.	n.a.	7.3	3.0	5.3	n.a.	n.a.	n.a.
1973–74	5.3	1.3	n.a.	n.a.	4.8	2.8	5.0	n.a.	n.a.	n.a.
1974–75	8.6	1.8	n.a.	n.a.	5.9	4.2	6.9	5.5.	n.a.	n.a.
1975–76	7.5	2.0	n.a.	n.a.	6.6	5.7	6.9	5.3.	n.a.	n.a.
1976–77	7.1	2.1	n.a.	n.a.	6.9	6.0	7.9	5.4.	n.a.	n.a.
1977–78	5.8	2.3	3.5	5.2	7.0	6.0	8.3	5.0	6.2	n.a.
1978–79	5.6	2.0	3.1	5.9	7.5	5.0	7.2	4.8	6.1	n.a.
1979–80	7.5	1.9	3.0	6.1	7.3	6.2	7.7	5.7	6.2	n.a.
1980–81	7.4	2.3	4.3	7.4	7.8	9.7	7.2	6.3	5.3	n.a.
1981–82	9.4	2.4	6.0	8.1	8.3	11.0	10.9	7.7	6.7	n.a.
1982–83	9.9	2.5	8.2	8.3	8.7	12.5	11.9	8.3	10.1	n.a.
1983–84	7.1	2.8	7.1	9.7	9.4	11.7	11.1	7.2	9.1	n.a.
1984–85	7.3	2.6	7.3	10.2	9.4	11.2	10.4	7.2	8.5	n.a.
1985–86	7.1	2.7	6.4	10.4	10.6	11.3	9.5	7.2	7.6	4.1
1986–87	6.1	3.0	6.2	10.5	10.8	10.4	8.9	6.7	8.0	4.1
1987–88	5.4	2.4	6.2	10.0	10.9	8.6	7.5	6.0	7.4	5.2
1988–89	5.3	2.2	5.6	9.4	11.1	7.1	7.3	5.7	6.0	7.2
1989–90	5.2	2.2	5.2	8.9	9.7	6.7	7.5	5.5	6.6	7.5
1990–91	6.9	2.1	4.5	9.4	10.0	9.4	10.5	6.5	9.3	10.2

(a) All series are OECD standardised unemployment rates except New Zealand (registered unemployed as a percentage of the total labour force). (b) Monthly data for New Zealand commenced in March 1990.

Source: Organisation for Economic Co-operation and Development (OECD).

M1 PLUS QUASI-MONEY INDEX
(Base year: 1985 = 100.0)

Period	United States	Japan	Germany (a)	France	Italy	United Kingdom	Canada	Australia	New Zealand
1969–70	19.2	14.7	27.5	n.a.	8.2	n.a.	n.a.	15.1	9.3
1970–71	21.3	17.3	30.7	16.6	9.4	n.a.	17.2	15.9	10.0
1971–72	24.3	21.4	34.7	19.6	11.1	n.a.	19.3	17.3	11.0
1972–73	27.8	26.5	40.7	23.1	13.2	n.a.	22.0	20.7	13.4
1973–74	30.9	31.2	46.4	26.4	16.2	n.a.	26.8	25.0	15.8
1974–75	33.6	34.5	47.5	30.5	18.9	n.a.	32.7	27.3	16.4
1975–76	36.8	39.5	47.8	36.0	23.0	n.a.	37.8	32.5	18.8
1976–77	41.0	44.7	51.7	40.9	27.7	n.a.	44.8	36.6	21.8
1977–78	46.1	49.7	56.8	44.2	33.7	n.a.	51.3	39.3	24.5
1978–79	51.4	55.8	64.0	47.8	41.1	n.a.	60.4	43.5	29.4
1979–80	56.6	61.8	70.0	53.8	48.7	n.a.	72.2	48.5	34.8
1980–81	62.4	66.7	76.6	60.0	54.6	n.a.	82.5	54.6	41.8
1981–82	69.8	73.4	83.9	67.1	59.8	n.a.	90.3	60.6	51.2
1982–83	76.9	79.3	87.6	75.2	69.7	n.a.	93.4	67.4	57.0
1983–84	84.5	85.2	89.8	83.9	79.7	n.a.	93.4	75.9	65.7
1984–85	93.1	92.0	93.8	93.3	90.2	n.a.	96.4	86.1	80.5
1985–86	100.5	100.0	99.0	100.8	100.4	n.a.	100.6	100.3	101.5
1986–87	109.0	109.0	106.5	108.4	110.5	n.a.	108.4	110.9	120.8
1987–88	115.7	121.5	112.8	117.9	120.2	137.1	116.6	126.3	137.2
1988–89	122.4	134.0	121.4	128.0	131.8	161.0	128.7	151.6	146.1
1989–90	126.6	149.0	134.7	139.8	144.8	192.2	142.8	186.2	150.9
1990–91	129.1	160.7	161.1	150.6	158.4	216.1	154.8	204.2	167.3

(a) From January 1991, data refers to Germany after unification.

Source: Organisation for Economic Co-operation and Development (OECD) and Reserve Bank of Australia Bulletin.

SHORT–TERM INTEREST RATES(a)
(per cent per annum)

Period	*United States*	*Japan*	*Germany(b)*	*France*	*Italy*	*United Kingdom*	*Canada*	*Australia*
1969–70	8.09	n.a.	9.88	9.59	n.a.	n.a.	7.00	n.a.
1970–71	5.38	n.a.	6.80	6.95	5.68	n.a.	4.31	n.a.
1971–72	4.58	n.a.	4.65	4.89	4.84	n.a.	5.25	n.a.
1972–73	8.11	n.a.	13.62	8.00	6.15	n.a.	6.75	n.a.
1973–74	11.38	n.a.	9.46	13.74	16.46	n.a.	9.75	n.a.
1974–75	5.82	n.a.	4.88	7.26	9.81	9.72	7.17	n.a.
1975–76	5.84	n.a.	4.14	7.99	19.67	11.28	9.43	n.a.
1976–77	5.42	6.44	4.28	9.04	14.27	7.94	7.13	11.10
1977–78	7.82	5.03	3.68	7.93	11.75	10.04	8.37	10.80
1978–79	9.95	5.32	6.46	8.68	11.24	13.12	11.18	10.35
1979–80	8.49	11.55	10.11	12.35	16.91	16.77	11.04	13.85
1980–81	16.90	7.41	13.09	18.92	19.70	12.67	19.14	16.00
1981–82	14.46	7.14	9.28	15.70	20.51	13.00	16.45	18.75
1982–83	9.20	6.46	5.57	12.63	18.03	9.95	7.45	13.60
1983–84	11.34	6.35	6.13	12.23	16.87	9.45	10.00	12.80
1984–85	7.44	6.29	5.68	10.20	15.28	12.45	8.97	16.50
1985–86	6.73	4.64	4.65	7.24	12.51	9.77	7.77	14.80
1986–87	6.94	3.71	3.73	8.33	11.03	8.90	8.40	13.35
1987–88	7.51	3.82	3.93	7.39	10.50	8.91	9.31	13.15
1988–89	9.20	4.46	7.02	8.99	12.57	14.15	12.18	18.30
1989–90	8.23	6.86	8.30	10.07	11.98	14.97	13.56	15.10
1990–91	6.07	7.41	9.06	9.71	11.36	11.24	8.55	10.50

(a) All rates are 3-month treasury bills except Japan (3-month 'gensaki' rate), the Federal Republic of Germany (3-month loans rate), France (3-month interbank loans rate), Italy (6-month treasury bill rate), and Australia (90-day commercial bill rate). (b) Monetary, economic and social union between the Federal Republic and the German Democratic Republic took place on 1st July 1990.

Source: Organisation for Economic Co-operation and Development (OECD).

LONG–TERM INTEREST RATES (GOVERNMENT BONDS)
(per cent per annum)

Period	*United States(a)*	*Japan*	*Germany(b)*	*France(c)*	*Italy*	*United Kingdom*	*Canada*	*Australia*	*New Zealand*
1969–70	6.99	7.19	n.a.	8.55	8.01	9.58	8.09	n.a.	5.50
1970–71	5.94	7.32	n.a.	8.45	7.05	9.08	7.30	n.a.	5.51
1971–72	5.59	6.68	n.a.	7.83	6.41	9.32	7.45	n.a.	5.52
1972–73	6.32	7.09	9.90	8.88	6.98	10.15	7.74	n.a.	5.66
1973–74	7.03	9.18	10.80	11.45	9.78	14.38	9.46	n.a.	6.14
1974–75	6.86	9.17	8.40	10.21	9.84	14.41	8.88	n.a.	6.11
1975–76	6.92	8.77	8.30	10.37	13.91	14.09	9.35	n.a.	8.60
1976–77	6.99	7.31	6.60	11.11	15.28	13.26	8.72	10.41	8.53
1977–78	7.94	6.06	6.00	10.60	12.95	12.80	9.23	9.10	9.99
1978–79	8.32	8.07	8.00	10.71	12.75	12.69	9.73	10.00	12.64
1979–80	9.40	8.61	8.10	13.34	15.18	13.78	11.29	11.76	13.49
1980–81	12.39	8.78	10.50	17.32	19.67	14.57	14.76	13.15	12.90
1981–82	13.32	8.53	9.10	15.98	20.90	13.56	15.56	16.40	12.99
1982–83	10.64	7.49	8.10	14.52	18.39	10.39	11.48	14.85	13.59
1983–84	13.00	7.12	8.20	13.99	15.54	11.15	13.66	13.85	10.06
1984–85	10.36	6.26	7.10	12.12	13.91	10.70	10.71	13.50	17.33
1985–86	8.23	4.98	6.20	8.65	10.85	9.23	9.56	12.95	15.20
1986–87	8.63	3.91	6.00	10.40	10.41	9.23	9.78	12.80	15.45
1987–88	9.04	4.47	6.50	9.07	10.47	9.32	10.19	11.95	12.85
1988–89	8.40	5.16	6.90	8.96	11.44	9.88	9.63	13.50	13.03
1989–90	8.62	7.06	8.90	10.10	11.32	11.01	10.75	13.40	12.12
1990–91	8.54	7.12	8.40	9.59	11.06	10.34	10.23	11.15	9.74

(a) Yield bond guaranteed by government. (b) Monetary, economic and social union between the Federal Republic and the German Democratic Republic took place on 1st July 1990. (c) Average of daily rates.

Source: Organisation for Economic Co-operation and Development (OECD).

EXCHANGE RATES(a)
(currency per $US)

Period	Japan (Yen)	Germany (DM)(b)	France (Franc)	Italy (Lira)	United Kingdom (Pound)	Canada (Dollar)	Australia (Dollar)	New Zealand (Dollar)
1969–70	358.89	3.6327	5.5215	629.0	0.4170	1.0380	0.8973	0.8964
1970–71	357.41	3.5120	5.5273	624.6	0.4134	1.0210	0.8894	0.8885
1971–72	308.00	3.1720	5.0150	581.4	0.3882	0.9790	0.8396	0.8368
1972–73	264.68	2.5784	4.2528	596.2	0.3881	0.9982	0.7033	0.7466
1973–74	282.90	2.5243	4.9044	649.3	0.4182	0.9661	0.6700	0.6809
1974–75	293.44	2.3409	4.0042	625.3	0.4386	1.0259	0.7425	0.7535
1975–76	299.34	2.5775	4.7370	848.8	0.5664	0.9735	0.8112	1.0099
1976–77	272.96	2.3548	4.9401	885.1	0.5816	1.0575	0.9024	1.0327
1977–78	214.37	2.0838	4.5797	859.3	0.5440	1.1210	0.8788	0.9786
1978–79	218.84	1.8811	4.3648	845.7	0.4735	1.1718	0.9005	0.9664
1979–80	218.09	1.7668	4.1130	834.7	0.4280	1.1514	0.8678	1.0125
1980–81	224.14	2.3767	5.6568	1183.4	0.5065	1.2041	0.8752	1.1622
1981–82	251.11	2.4274	6.5790	1356.9	0.5691	1.2748	0.9682	1.3328
1982–83	240.02	2.5480	7.6632	1511.1	0.6459	1.2320	1.1403	1.5250
1983–84	233.22	2.7390	8.4197	1693.3	0.7260	1.3044	1.1338	1.5579
1984–85	248.92	3.0653	9.3391	1954.1	0.7806	1.3682	1.5037	2.1836
1985–86	167.83	2.2364	7.1288	1531.1	0.6627	1.3898	1.4529	1.8372
1986–87	144.52	1.8183	6.0751	1316.3	0.6139	1.3386	1.3930	1.7057
1987–88	126.84	1.7509	5.9064	1297.6	0.5605	1.2178	1.2379	1.4280
1988–89	143.91	1.9809	6.7209	1436.4	0.6439	1.1983	1.3226	1.7406
1989–90	153.76	1.6840	5.6647	1237.5	0.5849	1.1728	1.2842	1.7166
1990–91	139.80	1.7843	6.0579	1327.6	0.6064	1.1439	1.3161	1.7341

(a) Monthly data are daily averages of spot rates quoted for the US dollar on national markets. (b) Monetary, economic and social union between the Federal Republic and the German Democratic Republic took place on 1st July 1990.

Source: Organisation for Economic Co-operation and Development (OECD).

SHARE PRICES INDEX(a)
(Base year: 1985 = 100.0)

Period	United States (b)	Japan (c)	Germany (b)(d)	France (e)	Italy (c)	United Kingdom (c)	Canada (c)	Australia (c)	New Zealand (b)
1969–70	40	16	48	35	50	19	30	26	28
1970–71	53	19	49	37	39	24	36	25	25
1971–72	58	27	53	39	37	31	41	36	26
1972–73	56	36	51	46	59	28	42	36	32
1973–74	49	34	43	33	46	17	37	25	27
1974–75	50	33	47	34	35	21	39	22	25
1975–76	55	35	54	36	27	24	39	28	25
1976–77	53	38	54	28	21	30	38	27	23
1977–78	52	41	57	36	21	33	42	31	24
1978–79	54	45	53	46	28	40	60	33	24
1979–80	62	47	53	54	31	40	76	43	31
1980–81	72	57	56	41	59	48	87	57	50
1981–82	59	54	52	45	39	52	50	49	45
1982–83	90	65	71	60	52	71	90	57	57
1983–84	84	79	75	83	57	78	82	70	86
1984–85	100	101	98	102	96	98	100	94	100
1985–86	132	133	131	149	230	127	114	148	159
1986–87	168	218	130	178	241	182	138	199	183
1987–88	151	219	105	168	177	151	127	192	114
1988–89	178	248	136	234	212	177	139	191	109
1989–90	203	239	174	250	231	186	131	181	104
1990–91	217	190	154	219	169	192	128	179	80

(a) Industrial share prices for the United States, Germany, France, the United Kingdom and Australia. For Japan, Italy, Canada and New Zealand data refer to all shares. (b) Monthly data are daily averages. (c) Closing prices on last trading day of month. (d) Monetary, economic and social union between the Federal Republic and the German Democratic Republic took place on 1st July 1990. (e) Last Friday of month.

Source: Organisation for Economic Co-operation and Development (OECD) and Australian Stock Exchange.

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